PB 7-95-1

Infantry

January–February 1995

German Airborne Antitank Battalion ... Page 24

PB 7-95-1

Infantry

January–February 1995 **Volume 85, Number 1**

DEPARTMENTS

FRONT COVER: U.S. infantrymen in Italy advance into the foothills of the Apennines during February 1945.

• **INFANTRY** (ISSN: 0019-9532) is any Army professional bulletin prepared for bimonthly publication by the U.S. Army Infantry School at Building 4, Fort Benning, Georgia. • Although it contains professional information for the Infantryman, the content does not necessarily reflect the official Army position, and it does not supersede any information presented in other official Army publications • Unless otherwise stated, the views herein are those of the authors and not necessarily those of the Department of Defense or any element of it • Official distribution is to infantry and infantry-related units and to appropriate staff agencies and service schools • Direct communication concerning editorial policies and subscription rates is authorized to Editor, INFANTRY, P.O. Box 52005, Fort Benning, GA 31995-2005. • Telephone (706) 545-6951; DSN 835-6951. • Second-class postage paid at Columbus, Georgia, and additional mailing offices • **POSTMASTER: Send address changes to INFANTRY, P.O. Box 52005, Fort Benning, GA 31995-2005.** • USPS Publication No. 370630.

Commandant's NOTE

MAJOR GENERAL JOHN W. HENDRIX Chief of Infantry

INFANTRY FORCE XXI—FACING THE CHALLENGE

The world of the next century—and our nation's role in it—will be significantly different from today's environment. The challenges that the United States Army will have to face as we enter the next century are far more diversified than at any time in our nation's history, and in this Commandant's Note I want to describe what the Infantry is doing—and must do—to prepare for the future.

Even as late as the beginning of this decade, the threat was well-defined, and so we organized and trained the force to confront an array of contingencies focused on the Soviet Union and its surrogates. The dissolution of the Soviet Union, however, has spawned a much wider spectrum of conflict, and given Third World nations access to weapons and technologies formerly available only to the major powers. The United States must now prepare to deal with a broader array of threats to our national interests than ever before, to do so with considerably reduced resources, and to train the force while adhering to the strictest standards of safety commensurate with the accomplishment of our readiness mission.

Force XXI Operations, TRADOC pamphlet 525-5, is the Army vision of how joint military operations will be conducted as we enter the next century. Infantry Force XXI will play an increasingly pivotal role in those operations, given the diversity and nature of the contingencies we can expect, both in war and in operations other than war (OOTW). The following five modernization objectives define the desired end result of the Army's Force XXI Campaign: Protect the force; project and sustain the force; dominate maneuver space; execute precision strike; and win the information war.

With these goals in mind, the Infantry Force XXI initiative is developing the organization and operational concepts of the future Infantry, and the United States Army Infantry School is the focal point of that effort. As we move forward, this effort is likewise guided by the Army imperatives of doctrine, training, leader development, organizations to ensure the appropriate force mix, modernization of our materiel, and the need to attract, sustain, and retain quality soldiers.

Infantry Force XXI will include a redesign of the force at all echelons. This force design and the new operational concepts concurrently being developed will provide the impetus for new infantry equipment fielding and the doctrinal foundation that will meet the requirements of the Army's Force XXI Campaign Plan. The following Force XXI design principles will guide our efforts to redesign the force:

- The division will be organized to optimize information-based operations.
- We must dominate battlespace in terms of speed, space, and time.
- The battlefield tempo is to be controlled through overwhelming lethality.
- We must be able to simultaneously mount, execute, and recover from operations.
- We must be able to attain a rapid, decisive victory with minimal casualties.
- The force must be both rapidly deployable and operationally agile.
- Our ability to tailor forces must be attained through the use of modular elements.
- We must not lose focus on the primary mission of divisions—to fight and win battles.
- We must be able to function effectively in joint and multi-national operations in both war and OOTW.

The Infantry School has focused its effort on the concept of an objective infantry force that can carry out an array of missions, through its enhanced deployability, versatility, mobility, and lethality. Infantry Force XXI

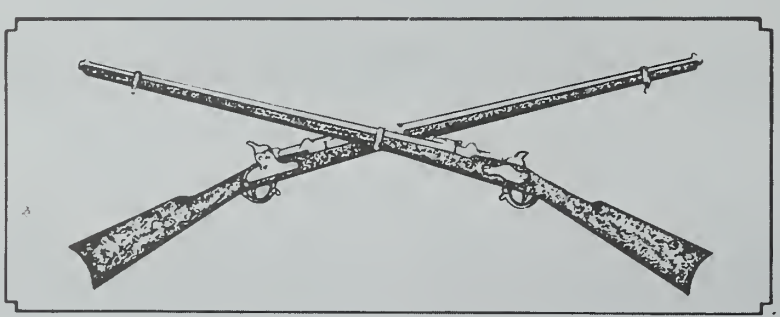
also provides the basis for a detailed review of all ongoing programs for which the Infantry has proponency and will provide for the development of state-of-the-art doctrine, organizations, equipment, and training systems. The inclusion of organization, concepts, and technology in this effort will ensure that our evolving concepts of battle command, battlespace, and information operations are able to draw upon the tremendous technological potential of our nation to quickly gain—and maintain—the edge against any potential adversary.

The stunning Gulf War victory of Coalition forces demonstrated the necessity of maintaining our lead in technology, doctrine, and training, and we must continue to maintain—and even expand—our lead as we approach the 21st century. Knowledge-based operations, situational awareness, digitization, precision, simultaneous attack in depth, and lethality are the key concepts that will contribute to the development of Infantry Force XXI. Each of these is a powerful combat multiplier in itself, but the synergism of their simultaneous application will yield an even more formidable combat force. Our ability to exploit information in all its dimensions will enable us to conduct operations in the light of the most accurate and up-to-date intelligence, communicated to commanders and planners at a rate hitherto impossible, and updated in response to the changing tactical or logistical situation.

The advantages gained through digitization will in turn enhance commanders' situational awareness by providing them with real-time friendly unit locations and accurate data on enemy dispositions and capabilities. This will pay tremendous dividends in such vital areas as casualty evacuation, resupply operations, and the ability to respond rapidly on a highly fluid battlefield. Precision, another of the concepts to be exploited in Infantry Force XXI, will include the guided munitions, laser designation systems, and pin-point destruction our maneuver force will have at its disposal. Immediately responsive fire-for-effect missions will be made possible through improved position location capabilities and digital communications. The net gain from all of this will be increased lethality over that of today's weapon systems, increased confidence of the Infantry force in its firepower, and a greater potential to deter would-be aggressors from adventurism.

The program I have outlined is an ambitious one, and it will be accomplished by means of live exercises such as Advanced Warfighting Experiments, focused rotations at the Combat Training Centers, and experiments conducted under the auspices of the Dismounted Battlespace Battle Lab. These will be complemented by constructive efforts such as Brigade/Battalion Simulations (BBS), Simulation Networking (SIMNET), the JANUS simulation, Synthetic Theater of War (STOW), the Close Combat Tactical Trainer (CCTT), and the Rapid Force Projection Initiative (RFPI). The virtual dimension will play a role through such programs as the Night Fighting Training Facility (NFTF), and the Virtual Brigade. Perhaps most important of all, operational experience gained from Operations DESERT SHIELD and DESERT STORM, Somalia, Haiti, Macedonia, and deployments at home in response to earthquakes, hurricanes, floods, and civil unrest will be used to factor in the realities that U.S. units have faced in recent history.

This, therefore, is Infantry Force XXI. We recognize that we must plan for future operations, be able to project force rapidly, and be able to operate decisively in all forms of warfare—and in operations other than war—against a variety of threats and under a variety of conditions. We will accomplish this through the application of technology, doctrine, and training to maintain both a credible deterrent and an Army that can move fast, strike hard, and do the job right the first time, every time.



INFANTRY LETTERS

THE STUDY OF MILITARY HISTORY

Studying military history can be useful to a soldier, but it can also be a pitfall. Some officers study military history in search of the answers to all tactical problems, but what does military history offer that can't be gained more efficiently from other, more specialized sources? The problem lies in the practical application of the principles learned from its study.

Some page through military texts looking for the way soldiers react to stress and fear, for the mistakes that squander lives and materiel, and even to study tactics that have succeeded or failed. They seem to be trying to learn psychology, tactics, management, and history all at the same time. Although these are all fundamental to our profession, this is a poor way to go about studying them. For these other subjects, military history should be the end, not the means. Studying psychology may not be as glamorous as studying the order of battle for a favorite campaign, but if that's what is called for, then we must do it.

I'm not trying to dissuade anyone from studying military history (I'm partial to the U.S. Civil War myself), but soldiers must be aware that authors often have hidden agendas, some of them not even well hidden. Some writers, especially those personally involved with particular battles or campaigns, seem to try to justify the past instead of clarifying it. If an author has put his life on the line in close combat, our right to judge him is shaky at best, but when he loses objectivity, it detracts from the validity of any lessons we might try to draw from his work.

Even an author who is committed to producing a good history is subject to limitations—his own specialized knowledge, his willingness to demand of himself expertise in several areas, and the willingness of a publisher to print a work of interest to a limited audience. For these reasons, it is difficult to find suitable material for any serious study of military history.

Obviously, there is also a danger in accepting tactics that worked in the past and trying to make them work in the present. Tactics are based on the technology available, and any attempt to base them on history is pure folly. For example, the offensive tactics popular in the Mexican War were based on the use of the smoothbore musket and the bayonet; yet these tactics found their way into the Civil War, despite the fact that the effectiveness of rifled barrels had been well established in the meantime. "Students" of military history on both sides were unwilling to change from the earlier successes of massed rows of troops, and the result was a staggering number of casualties on both sides.

Still, the most dangerous shortcoming in the study of military history can lie with the readers themselves, if they accept an author's word as gospel without checking on his qualifications or rounding out their study with other works. Often, this effort centers on the politics of the readers, many of whom simply don't know real history when they see it. So long as military service is looked upon as a respectable profession, military history—a *man*'s history subject to a lack of objectivity from the start—will have a glamorous appeal.

Military history should be regarded as the dessert, to be consumed only after a main course consisting of current doctrine (something we lieutenants are dreadfully short on), psychology, physiology, small-unit tactics, and technical competence. Because of constant improvements in technology and human understanding, constant review is also required.

In the education of a professional soldier, military history is only one of many ingredients, and it should be treated accordingly.

RANDI L. BUROS
LT, Infantry
Schofield Barracks, Hawaii

BICYCLE INFANTRY IS WORTH CONSIDERING

I wish to commend Captain Kevin D. Stringer for his interesting article "Bicycle Infantry: The Swiss Experience" (INFANTRY, September-October 1994, pages 10-12). He has certainly proposed some ideas that I believe are worth considering.

For skeptics who may deride the example of the Swiss Army's use of bicycles because that army hasn't fought a war lately, there are plenty of modern examples of belligerents using bicycles.

I ran across a very interesting interview conducted with General Hermann Balck, renowned German infantry commander of World Wars I and II, in 1979. The following excerpt deals with the use of bicycles by infantry troops:

From the early '30s, I advocated equipping infantry with bicycles in preference to motorcycles for the reasons that bicycles would be very quiet, would be able to go off the roads onto trails, and would be almost as fast as motorcycles. However, I didn't have the time or the position to fight for this position. I had some actual experience with bicycle infantry because right after the First World War, I commanded a bicycle infantry battalion in Germany.... Bicycle infantry was never very popular with

the troops because, of course, all that pumping was more effort than riding comfortably on a nice, powerful motorcycle. Nevertheless, the mobility of the bicycle troops was quite good. ***It was absolutely no problem to make a hundred kilometers in a day.***

The U.S. Army has also tested bicycles—both in the late 1800s and in this century. In a 1988 REFORGER (return of forces to Germany) Exercise, we used bicycles in a company that had already turned in its M113s and was awaiting its new M2 Bradley fighting vehicles. The company was designated one of our division's air assault elements and in this capacity fulfilled some of the roles proposed by Captain Stringer. As I recall, most of the bicycles were privately owned, with some borrowed from the local morale, welfare, and recreation office.

Unfortunately, when the idea of purchasing a number of bicycles for the division's designated air assault battalion was staffed, it was stopped dead by a G-4 who equated bicycles with old-fashioned low technology. (His sarcastic comment on the returned action was, "This is a new and novel idea! Nonconcur.")

Captain Stringer outlines some convincing arguments for those who remember what Japanese bicycle troops did in Malaya, but there will always be some who oppose such ideas because they don't appear to be "high-speed, high-tech" enough. As an infantryman, I could find a number of uses for bicycles on missions such as he proposes. As a tactical combat force, bicycle infantry would be excellent in combination with an airmobile capability.

Although the use of bicycle infantry naturally depends on the situation, other armies have used them quite successfully in the past, especially in Europe where a highly developed road and trail network supports bicycle trafficability. I do not propose that they be used in contact with conventional enemy forces, but they provide some interesting options in operations other than war, in rear areas, and for the tactical or administrative movement of forces when out of contact.

Just because it's not high-tech doesn't mean it's not a good idea for the U.S. Army.

EDWIN L. KENNEDY, JR.
LTC, Infantry
Combat Studies Institute
U.S. Army Command and
General Staff College
Fort Leavenworth, Kansas

AIRDROP OF ALL-TERRAIN BICYCLES

I read Captain Kevin D. Stringer's article "Bicycle Infantry: The Swiss Experience" (INFANTRY, September-October 1994, pages 10-12) with great interest.

In addition to the defensive tasks he outlines, members of my National Guard unit (Lieutenant Jeff Johnson, Staff Sergeant Ernest Hoppe, and I) have militarized folding all-terrain bicycles (ATBs) to act as light strike or reconnaissance vehicles for *offensive* missions.

We jumped ATBs from a high-performance STOL (short takeoff and landing) turboprop aircraft during a Special Forces combat developments demonstration. Our combat equipment jumps included M16A2 assault rifles in M1950 cases, mesh-panel tactical load-bearing vest with ammunition, MREs (meals, ready to eat), and water under MC-1B static-line parachutes.

After a good canopy, I released my folded ATB in an airdrop bag on a lowering line for landing. Lieutenant Johnson's and Sergeant Hoppe's non-folding ATBs were on an airdrop platform with an all-terrain all-purpose cart (ATAC) rigged to a G-13 cargo parachute. After unfolding my ATB and assembling it (in less than five minutes), we executed a hostage rescue, then exfiltrated 30 miles by bicycle to Fort Bragg. Lieutenant Johnson towed the cart to simulate a casualty evacuation.

Four folded ATBs will fit inside an A-21 CDS (container delivery system) container for door or ramp bundle airdrop, or one ATB attached to each paratrooper in an airdrop bag with lowering line. No added airlift is needed to move ATB-mobile forces.

There is a long history of bicycles used for raids and reconnaissance: During World War II, Finnish *Jaegers* destroyed Soviet armor in their winter wars. German *Radfahrtruppen* seized objectives across Europe and most of Russia. The Japanese bicycle infantry seized Singapore and Malaya using infiltration attacks. British paratroopers jumped with folding bikes to capture components at Bruneval radar station.

Early test jump of folding all-terrain bicycle before airdrop bag was ready.

"Cycle-commandos" rapidly linked up with airborne units holding the Orne River canals on D-Day. A U.S. 82d Airborne Division paratrooper on a bike saved the day on Sicily by securing fire support to stop the Herman Goering Division at Biazza Ridge. Following the Spanish-American War in Cuba, the U.S. Army 25th Bicycle Infantry Corps put down riots under conditions similar to those in Haiti today. Today, ATBs are in use by the British 5th Airborne Brigade, Gurkhas, Special Air Service, Swiss bicycle regiments, Slovenian light

infantry, Singapore Special Forces snipers, and Dutch Royal Marines.

U.S. Army offensive ATB tactics should center on folding or compactable types with air, ground, and sea craft that can deliver them and infantry outside sensor and sight or hearing range of the enemy. This protects the motor-driven delivery craft from enemy detection and fires, air defenses using ATBs' speed and stealth to reach a close foot assault position (where the bikes are cached), surprising the enemy. "Thellie" infrared (IR) camouflage clothing worn by ETB-mobile forces makes them invisible to any army equipped with IR viewers.

For movement security, a six-man ATB team would have two three-man "wings." The lead scout would use an IR sight to detect people, mines, or booby-traps along the route patrol.

All team members should wear Ranger body armor, PASGT kevlar helmets with AN/PVS-7B night vision goggle interface and squad intercommunications system to ensure that information is passed laterally. When close to the enemy, the "wings" would move and cover each other by bounding overwatch. (The best reference is Major Stephen Tate's 1989 U.S. Army Command and General College master's thesis, "Human Powered Vehicles in Support of Light Infantry Operations," available from the Defense Technical Information Center (DTIC), File Number AD A211 795.)

The 21-speed folding ATB is available from the Army and Air Force Exchange Service post exchange catalog. Our military-hardened ATBs have solid foam inner tubes to prevent flat tires, rear storage racks for rucksacks, and mini-Allen wrenches on the folding point lug nuts for quick folding and unfolding, and they are painted in a subdued color (brown works in both woodland and desert areas).

Still better are extreme terrain bikes (ETBs), with 10-inch wide ATV tires that ride over soft sand and snow. Areas with unimproved roads are ideally suited for ATB mobile infantry units moving from drop or STOL assault zones on the outskirts of cities to seize road blocking positions to capture fleeing enemy leaders and establish the reconnaissance and security line.

A foot march from the drop zone is slow (three miles per hour) and risks decisive engagement by mobs and paramilitary forces. A motor march requires either lengthy de-rigging of airdropped vehicles from fixed-wing aircraft or noisy helicopter flight from offshore ships. Motor vehicles are noisy, they require wide streets to pass, and can be stopped by barricades and small arms or mine ambushes. ATB forces in position can prevent or disrupt road barricades and ambushes, allowing air-delivered motor vehicles to enter cities. Experiences in Somalia showed that motor-driven vehicles are vulnerable to urban ambush.

Current ground reconnaissance assets are either static or use motor vehicles and are thus incompatible for fluid situations where many enemy informants observe a few congested roads. Maneuver units need a wide reconnaissance screen that disseminates digital intelligence for maximum value. In the Falklands, a British SAS mobile reconnaissance team tracked down and destroyed Argentine troop transport helicopters intended for massed counterattack. The Argentines moved their helicopters daily to avoid detection, but the SAS team followed aggressively—at night and using camouflage nets over hasty daytime positions.

An ATB-mobile reconnaissance strike team could parachute several miles away from planned drop zones for airborne troops, move rapidly to recon the DZs, and then move into blocking positions to keep the enemy at bay until the main body arrived. On signal, the team would move quickly and silently ahead of the division's planned axis of advance, giving them advance warning of enemy actions, so the enemy's forces could be properly engaged and his unarmed civilian mobs avoided.

The ATBs' silence, small size, and air-deliverability enable a mobile long-range surveillance team to move at night using night vision goggles into temporary but well-camouflaged "hides" using "Thellie" clothing and nets, with further flexibility to move to new observation points as the situation dictates, covering several named areas of interest and ensuring that we have a constant flow of information on enemy actions to the corps G-2. Unlike observation aircraft, ground ATB-mobile reconnaissance teams can loiter in an area indefinitely without alerting an enemy as would a helicopter flying overhead.

MICHAEL L. SPARKS
U.S. Army National Guard
Raeford, North Carolina

RETURN TO OKINAWA FOR 50TH ANNIVERSARY

Veterans of all services who fought in or supported the Okinawa campaign in the spring of 1945 are invited to join members of the 1st Marine Division Association in a return to Okinawa, 19-25 June 1995.

The Tenth Army Expeditionary Troops, composed of the III Marine Amphibious Corps and the XXIV U.S. Army Corps, attacked Okinawa proper on 1 April 1945 and gained control of the island chain over the next 82 days.

For information on the return to Okinawa, anyone who is interested may write to Colonel Warren H. Wiedhahn, USMC Retired, Box 1179, Arlington, VA 22313-2375.

CYRIL O'BRIEN
1st Marine Division
Association
Chantilly, Virginia

INFANTRY NEWS

THE DISMOUNTED BATTLESPACE Battle Laboratory, at Fort Benning, has the job of ensuring that the soldiers of Force XXI "own the night." This job includes taking the lead in selecting and developing technology for the combat arms as well as for combat support (CS) and combat service support (CSS) forces.

As a first step in this effort, the Battle Lab has developed a nightfighting capabilities concept to establish the requirements for fighting and winning on the battlefield of the future. The goal is to provide U.S. combat soldiers with night vision equipment that will enable them to see enemy forces first and then effectively engage them with a full range of weapons.

The Battle Lab is working with industry and the Army's procurement system to obtain the latest night vision equipment. For example, it is currently testing Belgian-made goggles. The Belgian goggles—designated HNV-1 for their holographic technology, similar to a heads-up display—offer better peripheral vision because the sides and bottom are open. The Battle Lab is attempting to learn whether this technology will increase the soldier's capabilities.

In addition to goggles, nightfighting systems for soldiers include laser target designators mounted on rifles, machineguns, and TOW missile launchers that enable soldiers to see the laser beams with their goggles and aim their weapons; infrared flares, flashlights, and markers that are visible through goggles; and lasers for visual communication with air crews flying close air support.

The lab is also working with combat forces to develop TTP (tactics, techniques, and procedures) manuals on how to fight at night. Units conduct local training with nightfighting devices, and some—the 82d Airborne Division, the 101st Airborne Division (Air Assault), the 25th Infantry Division, and the 75th Ranger Regiment—have participated in advanced warfighting experiments (AWE) and night fire demonstrations. As a result, the 82d Division will soon produce a draft small-unit TTP manual. All combat commanders will be given an opportunity to comment on the manual before it is distributed.

The leaders who will train soldiers to fight at night will be trained in a sophisticated training center at Fort Benning. The plan is that all officers and senior noncommissioned officers in their respective basic and advanced courses at Fort Benning will go through the Night Fighting Training Facility.

The course includes classes on how the eye works at night, how to train soldiers to use the equipment, and how to use lasers at night. One phase teaches boresighting weapons with laser target designators, and another trains soldiers to drive wearing goggles.

The most intricate part of the training consists of special indoor "lanes"—built to look like a forest, a desert, a jungle, an urban setting, a cave, and a climbing wall—that students must negotiate using their goggles. The different environments teach them what to look for in danger spots at night.

The Battle Lab has support teams at both the Armor Center and the Aviation Center to ensure that night vision equipment is adapted across the combat arms branches. The lab also helps CS and CSS soldiers apply night vision technology to their missions.

Nightfighters will be put to the test during an AWE in November 1995 at the Joint Readiness Training Center, at Fort Polk. The AWE will be a test of infantry outfitted with the latest nightfighting tools and digital battlefield communication systems against a conventionally equipped opposing force. It will be a follow-on to an experiment that was conducted with digitized armor units at the National Training Center in April 1994.

The Dismounted Battlespace Battle Lab is one of seven U.S. Army Training and Doctrine Command laboratories (see INFANTRY, November-December 1994, page 8). Its contribution to our warfighting skills will ensure that the U.S. Army continues to own the night well into the 21st century.

The 1994 index to INFANTRY is now available. Please send your requests to Editor, INFANTRY, P.O. Box 52005, Fort Benning, GA 31995-2005.

THE U.S. ARMY Physical Fitness School (USAPFS)—located at Fort Benning, Georgia—is seeking applications from individuals who are interested in assignments to the school.

The USAPFS is the Army's proponent for physical fitness training and doctrine. The school also teaches several Master Fitness Trainer classes throughout the year, which gives assigned personnel numerous opportunities to instruct.

The school has several positions for officers (in the rank of captain or major),

noncommissioned officers (in the rank of sergeant and above), and Department of Defense civilians (GS-6 through GS-12).

Anyone who is interested must submit a complete application that includes the following items:

- Department of the Army photo (or similar photo for civilian applicants).
- Last three officer or NCO evaluation reports or civilian performance appraisals.
- Officer Record Brief for an officer and Department of the Army Forms 2 and 2-1 for an NCO.
- Three letters of recommendation from the applicant's chain of command.
- A one-page letter or memorandum from the applicant expressing why he wants to be assigned to the school.
- Any other pertinent recommendations, transcripts, evaluations, certifications, or diplomas.

An applicant cannot be considered for a position until his application packet is complete. Upon acceptance to the school, an individual must serve at least 24 months.

Applications must be mailed to the Commandant, U.S. Army Physical Fitness School, ATTN: ATZB-PF (CPT Chancey), Building 468, Fort Benning, GA 31905-5000. Further inquiries or questions may be addressed by memorandum to the same address. All correspondence must include applicant's full name, rank, Social Security number, unit, address, and daytime telephone number.

A NEW ARMY FIELD MANUAL produced by the U.S. Army Training and Doctrine Command (TRADOC) spells out the principles of peacekeeping operations. Field Manual (FM) 100-23, *Peace Operations*, will be used as the basis for training soldiers and leaders to carry out various peace missions around the world.

Like all capstone doctrine produced by TRADOC, the manual is a guide for commanders to use and adapt to existing situations.

Although it describes three types of missions—support of diplomacy, peacekeeping, and peace enforcement—it is primarily concerned with the last two of these.

The fundamental difference between peacekeeping and peace enforcement is the use of applied military power. Peacekeeping troops are generally concerned with maintaining truces. Peace enforcement involves more heavily armed troops who may have to use force or the threat of force to establish conditions in which peace between warring factions may be achieved. In both cases, U.S. troops must operate under a mandate set by a legitimate authority, such as the United Nations or a coalition of forces.

The manual is based on principles contained in Chapter 13 ("Operations Other Than War") of Field Manual 100-5, *Operations*, the Army's chief warfighting doctrinal publication.

Although most of the principles can also apply to war, two of them—restraint and legitimacy—are particularly applicable to peace operations. These deal with limiting the use of military power to protect civilians and with treating all factions in a dispute fairly and impartially.

The new manual has been used to develop training scenarios at the Joint Readiness Training Center. It suggests that commanders develop and follow a campaign plan to help maintain the focus of operations. Considerations include the mandate, clearly defined objectives, and plans for turning operations over to other forces such as coalition partners or native organizations.

In developing FM 100-23, doctrine writers have used lessons learned from recent operations, such as PROVIDE COMFORT in Iraq and RESTORE HOPE in Somalia. But they have also used historical cases from such conflicts as the Boxer Rebellion in China in 1900, the U.N. operations in the Congo in 1960, and even the American Revolutionary War.

PROFESSIONAL FORUM

KOREA 1951

7th Cavalry Attack Against Hill 578

EDITOR'S NOTE: History has shown us that combined arms operations are the key to success against a well-equipped and determined enemy. Time after time during the Korean War, the combination of infantry, armor, artillery, and close air support enabled United Nations units fighting the North Korean and Chinese forces to overcome stubborn resistance, whether defending or attacking. The fierce fighting by the 7th Cavalry Regiment of the 1st Cavalry Division (Infantry) in the mountainous terrain south of Seoul during the second week of February 1951 is an example of just such an operation.

The Chinese Communist Forces (CCF) occupying key positions in the division's sector conducted a tenacious defense of terrain consisting of hilltops, corridors, and cross compartments. They were nevertheless dislodged in close combat with units of the 7th Regiment, a company team of the 8th Cavalry Regiment, and a battalion of the Greek Expeditionary Force (GEF).

This article—adapted from Training Bulletin No. 1, Office of the Chief of Army Field Forces, dated 4 February 1952—was submitted by Mr. Edward L. Daily, President of the 7th Cavalry Association, who participated in the assault on Hill 578 as 1st Platoon Leader in Company H, 2d Battalion, 7th Cavalry Regiment.

Early in February 1951 in Korea, the 1st Cavalry Division continued its slow advance against stiff enemy resistance. The 7th Cavalry Regiment had the mission to seize Hill 578 in its zone just east of the village of Kyongan-ni. Plans and preparations for this attack were initiated on 12 February, after an unsuccessful attempt to surround the hill and force its capitulation with air and artillery support. The attempt to surround the hill was frustrated by the enemy defenses in depth north of the town of Mugam-ni, which prevented the 3d Battalion from moving in the rear of the hill (see map).

The 2d and 3d Battalions were to make the main effort, and their commanders met with the regimental and battalion operations officers in the 3d Battalion sector, which offered excellent observation of the enemy position. Both commanders viewed planned objectives and agreed upon zones of responsibility.

The very crest of the hill mass was assigned to the 2d Battalion, and key features north of the crest were assigned to the 3d Battalion. This decision was necessary because of the length of the ridge line that extended north and east from the crest.

Battalion commanders discussed their planned route of approach and the deployment of their units with the regimental operations officer. They were assured that the maximum available firepower would support the operation, that secondary attacks on the part of the 1st Battalion, 7th Cavalry, and the 4th Battalion, GEF, would assist in the seizure of the ridge, and that an air preparation on the objective would be requested.

The operation was to begin on 14 February; this would also provide a 24-hour period for softening up the area by artillery and air. It was estimated that movement to the ridge line and the closing of the attacking elements on it would take two and one-half to three hours, even if there were no enemy on the hill.

Both commanders agreed that 0900 was the most desirable H-hour for the attacking infantry battalions. This schedule provided enough time for them to organize and deploy during daylight hours and also enough time after crossing the line of departure to reach the objective and to seize and organize it before dark.

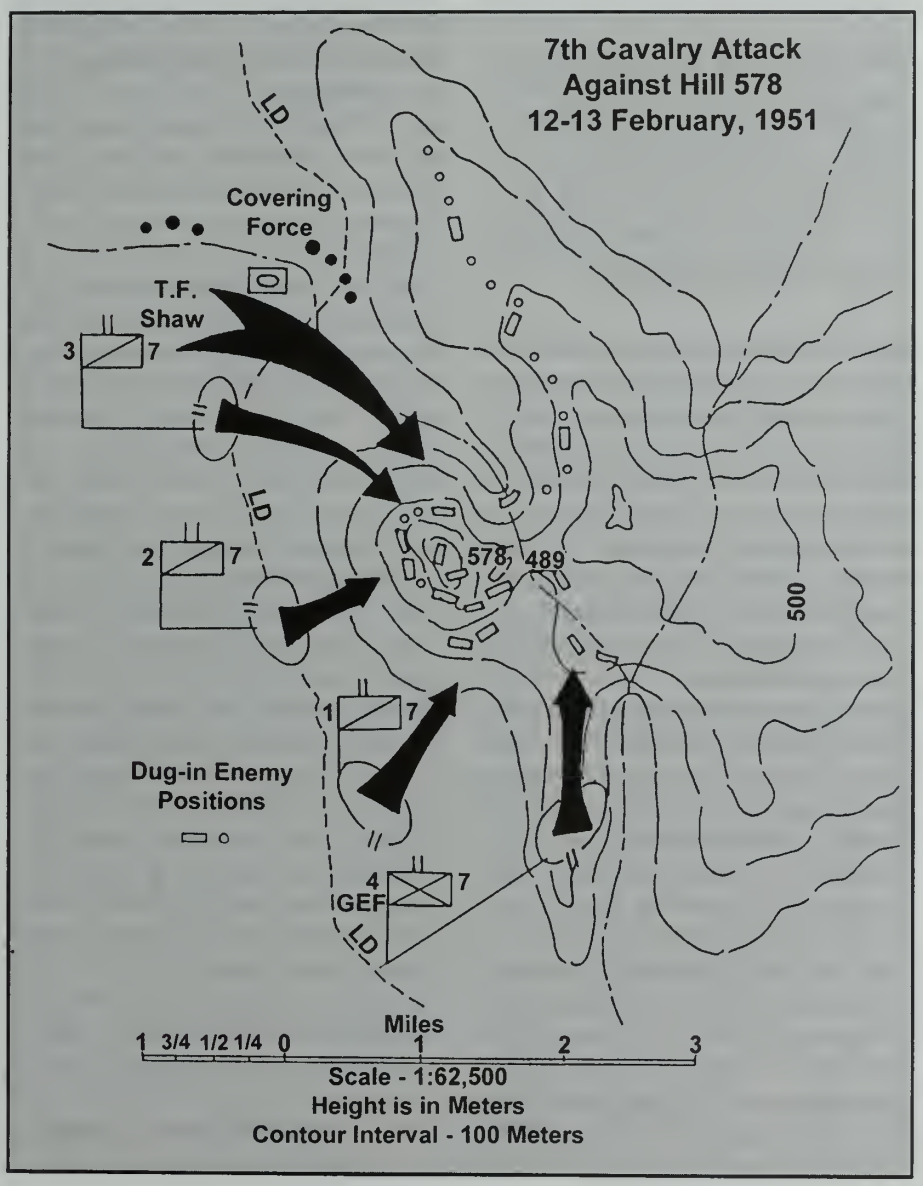
The regimental commander approved the plans, with minor modifications. The regimental operations officer then contacted the division G-3 and advised him of these plans, and a request was made for the following:

- An additional artillery battalion.
- An additional company of tanks.
- A 20-minute air preparation of napalm and 1,000-pound bombs on the crest of the ridge.
- An air-delivered smoke mission on the high ground north of Mugam-ni.
- An air strike every 30 minutes after 0900.

The division G-3 said the division artillery would support the operation and he would check on the possible attachment of the 70th Tank Battalion's reconnaissance platoon to the regiment. The division air officer forwarded both air requests for approval.

The 1st and 4th Battalions as well as the artillery, heavy mortars, tanks, engineers, and regimental staff were advised of the approved attack plans, and the artillery and heavy mortar companies were instructed to intensify their fires on the night of 12-13 February. The tactical air control party was also briefed, and all available air support was placed on the crest of the ridge line and other known enemy targets on the hill mass.

During the night of 12-13 February, the 77th Field Artillery Battalion, supported by other division artillery units, fired a number of time-on-target concentrations on the objective area. Along with these concentrations, a series of "Surrender now" broadcasts were made over a loudspeaker system in the 3d Battalion area. An enemy lieutenant colonel who had been captured in the 5th Cavalry Regiment area assisted the regular team in these broadcasts. As a result, three enemy soldiers surrendered on 13 February.



Three final steps were taken in the fire support plan:

- The artillery was to fire one round every five seconds after 0900 to prevent the enemy from reinforcing, moving his reserves, and manning his positions at the tip of the ridge. This fire was to be lifted on request from either of the leading company commanders. An emergency flare signal was established for lifting this fire in the event other communications were out.
- The 1st and 4th Battalions were to furnish supporting fire on the south and eastern portions of Hill 578, using their own organic mortars.
- Company C, 70th Tank Battalion, had the mission of providing direct supporting fire. Two platoons of tanks were attached to the 2d Battalion for direct fire support of its assaulting units, and one platoon of tanks was attached to the 1st and 3d Battalions for the same purpose.

Further preparation for the operation included the organization of Task Force Shaw, composed initially of the two tank platoons supporting the 2d Battalion; their fires would be masked as the battalion seized its objective. This task force was to move out once the assault units moved into their objective areas and proceed through Mugam-ni to a position in the rear of Hill 578 to direct fire onto the reverse slope.

At the request of the 1st Battalion commander, the original attack plans were modified to provide for the seizure of the piece of ground immediately north of the 1st Battalion's position. This ground, known as the Ice Cream Cone, dominated the 1st Battalion area and was strongly held by the enemy.

Following final coordination and the confirmation of H-hour as 0900 on 14 February, it was requested that the 8th

Cavalry Regiment launch an attack against the high ground northwest of Mugam-ni, in conjunction with the 7th Cavalry's effort, to divert enemy fire from the 3d Battalion's north flank. Although the 8th Cavalry was involved in a number of mopping-up operations at this time, the commander agreed to send a company-strength unit, supported by a platoon of tanks, against the high ground.

During the night, it was learned that the enemy was preparing a heavy attack. Although units of the 7th Cavalry were on alert status for most of the night, the enemy actually hit the 8th Cavalry area, and some of its elements were engaged until well after daylight. As a result, the 8th Cavalry could not stage its planned diversionary attack. The regimental plan had to be rearranged, and one section of tanks, formerly supporting the 2d Battalion, plus the tank reconnaissance platoon, was placed in position on the north flank of the 3d Battalion to engage this area by fire during the attack.

The regimental commander and his command group (operations officer, artillery liaison officer, tactical command post heavy mortar liaison officer, tank liaison officer, a number of radiomen, and an additional officer from the S-3 section, plus a journal clerk) moved at 0630 to the regimental observation post (OP), from which the leading elements of the 1st, 2d, and 3d Battalions could be observed. All units and division headquarters were linked by wire and radio.

The Attack

The initial artillery preparation went off as planned, beginning at 0700, over the forward slope of the hill mass, coupled with sporadic intense concentrations on suspected troop positions on the reverse slopes. At about 0820, when the division air officer said no air support would be available, the artillery was asked to continue its preparation up to H - 10. (Napalm would have been extremely effective against concentrations of enemy defenses on the tip of the ridge.)

Elements of Company K crossed the line of departure on time but took nearly 20 minutes to reorganize before continuing up the hill. Division aircraft operating in the area began to report enemy mortar positions and camouflaged supplies, and the artillery took these targets under fire. At 0934, the air OP sighted two enemy soldiers running down the reverse slope of 578, the first indication that the enemy was aware that U.S. regiment's infantry forces had actually jumped off in the attack. By 0940 the tank screening force of one section, plus the tank battalion's reconnaissance platoon, arrived in position on the 3d Battalion's north flank and began to execute its fire mission against known enemy positions on the high ground north of Mugam-ni. Aircraft soon reported more enemy soldiers moving on the trail on the reverse slope of 578 at 0942 hours, and this group was taken under fire. At 1005 Company K received sporadic small arms fire, and mortar and small arms fire increased in intensity from this point forward.

When a round jammed in the chamber of one of the tank guns, a crewman, without hesitation, moved in front of the tank with a rammer to dislodge the jammed shell.

It was reported at 1120 that the 1st Battalion had begun its air attack and was receiving heavy mortar, small arms, and automatic weapon fire. Then Company G reported receiving white phosphorus rounds. Since no friendly weapons were firing at this time, it was determined that the rounds were from enemy mortars, and the air OP was directed to determine their location.

As of 1155 Company K's advance was temporarily held up by heavy automatic weapon and small arms fire. Soon, both Companies I and K were receiving extremely heavy mortar fire. A number of reports of enemy recoilless rifle fire were received, but this fire later proved to be from 2.36-inch rockets being used as antipersonnel weapons.

At 1210 the air OP had located two mortars, which aircraft quickly took under fire. Tanks screening the 3d Battalion's left (north) flank were receiving heavy mortar fire at 1225. At 1325 it was reported that Company K had reached its objective and was receiving heavy small arms and automatic weapon fire. Company L, following in the trace of Company K, dispatched one platoon to the right of K and above the objective area, and this platoon succeeded in getting above and behind the enemy forces defending the area. Suddenly finding themselves surrounded, 14 of the enemy surrendered and the rest were killed.

During this action, there were many situations in which enemy soldiers continued to fight until killed by the attacking infantrymen. At 1340, Army aircraft reported 42 enemy moving east on the road out of Mugam-ni, apparently to reinforce the position in the Hill 578 area, and artillery fire was directed against these troops.

By 1345 both of the attacking companies of the two leading battalions were in assault positions. Company K had already secured its objective, and Company G was within 25 yards of the crest. At this time, the 1st Battalion, 7th Cavalry, and the 4th Battalion, GEF, were ordered to begin their coordinated movement so that neither would be ahead of the other.

At 1400 the air OP reported 15 enemy lying in ambush immediately behind a position on the ridge, within 15 feet of the lead elements of Company G. This message was immediately flashed to Company G, which soon became hotly engaged with these and other enemy infantry. Company troops moving up to the ridge line were met by a showcr of grenades from the enemy troops in the area. Machineguns opened up on both flanks, and the leading elements of the 2d Battalion withdrew about 25 yards. Company G battled the enemy along the ridge line using hand grenades and light mortars.

The 3d Battalion was directed to

move elements up the hill (to the south), from which location it could support the 2d Battalion by firing on the reverse slopes. Company K had an extremely difficult time seizing its strongly defended objective, which turned out to be the enemy communications center for the entire hill mass and included the regimental CP, one battalion CP, and several company CPs. The CP area was particularly well defended, and many enemy were killed in this area. It was necessary to pass Company L through Company K to continue the momentum of the attack.

At 1440 Task Force Shaw was ordered to proceed on its mission, and the tanks began moving out of their attack positions. The 4th Battalion, GEF, reported that its lead elements had moved out at 1445. By 1505 they were receiving heavy fire. Instructions were issued for the 4th Battalion to block their forward positions, taking the local enemy positions under fire until the Republic of Korea (ROK) units had seized the dominating ground on the east. Soon, Task Force Shaw found that the road west of Mugam-ni had been mined, but the tanks promptly backed up and blew the mines out of the road with their cannons and proceeded on their mission. The task force shot up the town, but all the enemy supplies, ammunition, and casualties appeared to have been removed.

Leading elements of the task force moved on through the town and several hundred yards beyond the point where the road narrowed to a trail that was impassable for tanks. Several enemy soldiers fired at the tanks with small arms machineguns, and mortars, and the tanks returned the fire. When a round jammed in the chamber of one of the tank guns, a crewman, without hesitation, moved in front of the tank with a rammer to dislodge the jammed shell. He was wounded by mortar fire, which had been falling in and around the tanks. He was placed on the back of one of the tanks and evacuated to the 3d Battalion aid station while the rest of the task force continued engaging the enemy.

Elements of the 1st Battalion were heavily engaged, and Company B was stopped on the approaches to the objective. The 1st Battalion commander committed elements of Company C around both flanks and pushed his attack successfully in overrunning the objective. Despite the difficult terrain, the unit killed or wounded a considerable number of enemy and captured enemy supplies, and the 1st Battalion objective was secured by 1600.

Meanwhile, the leading elements of the 2d Battalion were maneuvering on top of the ridge, still heavily engaged with the enemy, while Company L continued its move up the slope, followed by Company K under enemy fire. In its attempt to outflank the enemy on the reverse slopes, Company L ran into an enemy strong point and was under grenade, machinegun, and mortar fire. By 1730 it was pinned down. Elements of the 2d Battalion continued to maneuver in an attempt to outflank and overrun the enemy position, but the battalion was in an extremely exposed position and taking casualties from mortar fire.

Five Chinese machinegun pillbox emplacements on the hill had excellent fields of fire and were able to sweep the entire area with crossfire.

The commander of 3d Battalion, who had moved up the hill to the vicinity of the assault company, reported that his position was not tenable and requested permission to withdraw, reorganize, and begin the attack the next day. Permission was refused, and the commander was directed to take the hill. The 3d Battalion was notified of this order, and Company L was placed under the operational control of the 2d Battalion, pending seizure of the hill and until daylight the next morning.

At 1755 the fighting was still raging on the ridge line, but darkness had set in, and observation from the OP was not practical. The regimental command group departed for the regimental CP. The commander stopped at the 2d Battalion CP on the way, where he reemphasized the instructions concerning seizure of the ridge and secured a last-minute report on the situation.

Fighting continued throughout the night. The 2d Battalion commander, who had gone to the scene of the action to direct his battalion, maneuvered Company F to the right, but it was pinned down by fire and driven back. He then committed Company E to the left of Company G so as to join Company L, which had reached the crest on the north and was firing into the northeastern portion of the reverse side. It was impossible for Company L to fire into the southeast portion of the hill because of the terrain, which consisted of two half-moon formations on the reverse slope. The enemy's strongest reinforcements were in the southeastern area. Five Chinese machinegun pillbox emplacements on the hill had excellent fields of fire and were able to sweep the entire area with crossfire. Most of the time, from the arrival of Company G until dark, was used in an attempt to maneuver a 75mm recoilless rifle into position to knock out these machineguns. Finally, a flamethrower operator from Company G pushed forward about 1700 and knocked out the position on the extreme northern flank. Although the operator was driven back by enemy fire shortly afterward, his work made possible the later capture of this end of the ridge by the 2d Battalion.

Reports from prisoners captured during the daylight fighting indicated that, as of 2045, about 20 enemy soldiers were manning the topographical crest of the ridge but that the troops in position behind the crest included a battalion plus two platoons. Each time friendly forces succeeded in moving up on the ridge, these enemy reserves successfully counterattacked.

At 2330 the 2d Battalion reported that Company E, which had been committed on the left flank of Company G, had

finally overrun the top of the ridge on the extreme northern portion of the positionand had destroyed two machinegun nests. Three additional machineguns still in position were pinning down both Companies E and L, which were not yet in physical contact with each other. When it was suggested that marching fire be used, the reply was, "There is no room to march."

At 0255 on 15 February, enemy resistance was slackening and another attempt was made to push over the ridge. The lead companies were using 60mm mortars effectively against the enemy. One of these companies, Company L, fired 300 rounds from one mortar. Company F continued to maneuver to the right flank to get behind the enemy, while Company E held onto the high ground it had gained. Between 0400 and 0600 the 2d Battalion again assaulted the enemy positions and was, in turn, hit by a counterattack of about 50 enemy troops in a desperate attempt to drive the Americans off the position before daylight. This counterattack was unsuccessful, however, and proved to be the enemy's last effort.

When the counterattack was first reported, air support was urgently requested from division, and the fighter aircraft that soon began arriving were directed against the rear slope of the hill. By 0725 it was reported that Company E had seized an additional portion of the ridge and that this portion was now held in strength.

Task Force Shaw was ordered to move out at 0735 to exploit the hill's reverse slope. The 4th Battalion, GEF, was ordered to move to an assembly area in the vicinity of the 3d Battalion CP and to be prepared to relieve the 2d Battalion after seizure of the objective. The air controller reported that a number of enemy were withdrawing as of 0845, and the Task force was directed to take them under fire.

By 0900 the 2d Battalion reported the enemy soldiers were in flight and the ridge line had finally been seized in hand-to-hand combat. All companies of the 2d Battalion and Company L organized perimeters on the ridge line and immediately sent patrols to mop up the general area and the approaches. The 1st Battalion was directed to send a patrol up from the south to the crest of 578, and this completed the capture of the hill mass.

Enemy Organization of the Position

The enemy organization of the area placed the CCF 2d Battalion, 336th Regiment, on the west and north slopes and on the peak proper. The regiment's 1st Battalion, reinforced by units from the 342d Regiment, occupied the south and east slopes and covered the saddle between Hills 578 and 489. (The regiment's 3d Battalion had been annihilated on Hill 202.) Since all of these units had suffered a large number of casualties in previous fighting, the total strength holding the hill was no more than 700.

If we can train our soldiers to move in closer under their supporting fire and to assault quickly in that critical moment when the fires are lifted, we will have greater success and fewer casualties.

As the attack proceeded, it developed that the objective of the 3d Battalion, 7th Cavalry, was the location of the CP for the 2d Battalion, 336th Regiment. The CCF defended this position with small arms, automatic weapons, grenades, and mortars until it was apparent that it was about to be overrun. At this time, CCF officers passed more grenades to their men, instructing them to hold the line, while the units prepared to withdraw to the peak. In the middle of this move, they were caught in the open and an undetermined number of them were shot down by 7th Cavalry machinegun fire. The remaining defenders of the position resisted until their ammunition was expended and they were killed or captured. What was left of the 3d Battalion, 336th Regiment, had organized the peak of the hill with five machineguns in mutually supporting positions. These guns, well dug-in and camouflaged, were positioned to cover the ridge line approaches to the hill from the west, south, and north. The regiment's advance overran two of these guns on the western slope but was quickly repulsed and the positions remanned. The enemy then resisted all attempts to advance through the cross fire from these weapons and from mortars, small arms, and hand grenades.

Evaluation

The operation demonstrated that when the chips are down against determined resistance, and when our troops are within assaulting distance and the supporting fires are lifted, the objective must be taken by prompt, aggressive assault, using marching fire, hand-to-hand fighting, and the determination and fortitude of the infantry. Unless our troops have the courage to move in and finish them off, a small group of tenacious enemy can hold mountain ridges such as these against forces many times stronger.

If we can train our soldiers to move in closer under their supporting fire and to assault quickly in that critical moment when the fires are lifted, we will have greater success and fewer casualties. Any delay after fires are lifted will tend to increase our casualties.

Along with proper employment of supporting fires, the operation also provided an excellent example of the full use of infantry weapons. Grenades, mortars, recoilless rifles, flame throwers, machineguns, and individual weapons all played an important part in seizing the 7th Cavalry Regiment's objectives.

Division aircraft were extremely valuable in bringing enemy positions under the fire of supporting arms, and in pointing out enemy troop locations to our assaulting infantry.

Letter from Somalia
An S-3's Observations

LIEUTENANT COLONEL MARTIN N. STANTON

During the initial stages of Operation RESTORE HOPE in Somalia, the 1st Battalion, 87th Infantry, conducted numerous operations in the Shebelle Valley region from Belet Weynen to Kismayu. The battalion task force was also given the responsibility for Humanitarian Relief Sector (HRS) Marka, an area about twice the size of the state of Connecticut.

The following observations were originally written in personal letters to friends who might find themselves conducting similar operations. In these letters, I shared lessons I had learned as S-3 during the battalion's tour from December 1992 to April 1993:

The Basics. The lessons at battalion level, for the most part, reaffirm the importance of the basics: squad and platoon battle drills, patrolling, reaction to ambush, and security, security, security!

Intelligence. One of the most challenging things for the battalion staff was building an intelligence picture of the relief sector. Since little or no useful information was coming from higher intelligence sources, we had to build our own intelligence base. Fortunately, we had an excellent S-2 who worked well with the local community and was able to learn quite a bit about what was going on. Collection, however, is everyone's business. The lesson here is not to let anything happen without a thorough debrief. That was a point we had to make. Things that seemed innocent often were *not* when taken in the larger context of the overall picture.

Night Fighting. Night sights really did give us a priceless advantage over the bandits. Night patrolling and operations must be emphasized.

Rules of Engagement (ROEs). Drill ROEs constantly with your leaders, and set up situational training exercises that are based on the ROEs. The *shoot/not shoot* scenarios will present themselves time and again. Because we trained our soldiers well, we didn't have a problem with this, but if we had not emphasized it, we easily could have.

Drill ROEs constantly with your leaders, and set up situational training exercises that are based on the ROEs.

NCOs in the TOC. Your NCOs have to be capable of running the tactical operations center (TOC). The decentralized nature of the operations we conducted meant that the battalion commander would be out with one element and I would be in a place from which I could communicate with everyone and coordinate. The TOC—using retransmission equipment—could be as far away as 40 kilometers. This humanitarian, low-intensity, operations other than war (OOTW) kind of warfare is leader intensive. You will quickly get down to two officers in the TOC on 12-hour shifts. Train and empower your S-3 and S-2 NCOs, because if it works out like it did in Somalia, they will have a lot more responsibilities than they seem to have in CPXs and FTXs back home. Fortunately, I had some excellent NCOs and an enlisted soldier who had just come off the long relief exercise of Hurricane Andrew, where they had spent long hours operating a TOC. They knew *why* they were doing things;
they were not just taking reports, posting maps, and keeping commun-ications, and it made all the difference. We would not have been nearly as successful without them and the skills they had learned.

Snipers. Snipers in this kind of war can be key, especially in the counter-sniper role. Do everything you can to get sniper training for as many of your people as possible in the line companies and scouts. And get more sniper weapons whenever you can. They are really valuable.

Split Tactical Command Post (TAC). Because of the dispersed nature of most of the operations we conducted, the battalion had to operate with a split TAC. There is just no way the commander and S-3 can effectively command and control an operation if they're side by side. Ideally, the commander should be with the dismounted TAC in the main effort, and the S-3 should be in

a vehicle in communication with the main TOC. (If you have a hard target and a definite scheme of maneuver—that is, if you're on a cordon and search—then the commander stays where he can talk to everyone and have the dismounted TAC ready to go in with the reserve element.) Usually we were out of range of the brigade TOC with everything but tactical satellite communications, so it was actually easier than most maneuvers in that respect. The key is to have a smart guy with his team in a place where he can always talk to everyone. Normally, that's the S-3. Your actual TOC may be
tied to a specific location for various reasons, so train your TAC crews, and practice TAC operations frequently. (In our case, because we were responsible for HRS Marka, we moved the TOC only on major operations such as the battalion move to Kismayu in late February. For short-term operations we just went with the TAC vehicles and a mounted and dismounted TAC crew.)

Indirect Fires. Due to the nature of the war and the ROEs, there was not much use for indirect fire (mortars). Even when there is both a use for indirect fires and an ROE that supports it, I would argue against the commander bringing his actual fire support officer (FSO) along with him in the dismounted TAC. All you need there is someone who knows the fire plan and what targets to execute, and a good sergeant can do that. You need your FSO back in the fire support element coordinating fires and making sure there are no slip-ups in indirect coverage.

Get a senior, second-command captain to take your HHC. I know it's against branch policy and all that, but it really makes a big difference.

TOW Company. Try to keep a mix of .50 caliber machineguns and MK 19s as secondary weapons in your TOW company. Having just MK 19s limits you. A .50 caliber can do all sorts of neat things, like eat through a building. Comes in handy. A 50-50 mix is about right. TOW night sights should be brought along in any case. They are excellent for night observation. Try to get vehicle spotlights for all TOW vehicles. They were good for deterrent patrolling against bandits.

Headquarters and Headquarters Company (HHC) Commander. Get a senior, second-command captain to take your HHC. I know it's against branch policy and all that, but it really makes a big difference. For us, having a smart operator who knew the ropes and understood the big picture of supporting the battalion made all the difference. It's the old lesson of good guys in key places. Pick your captain, and then break all the stops to get him.

Communications. Push the envelope on your communications people. Make sure they know and practice all the directional antenna, field expedient OE-254, retransmission permutations possible. We were constantly operating at the very limit of
our ranges. Before I went to Somalia, I frankly did not think it was possible to communicate with our organic assets over the distances that we did.

Liaison Officers. If you're working with another nation's force, make sure your liaison officers (LNOs) are capable of doing the job. You or your LNOs must explain your plan thoroughly. In some cases, handing the LNOs the graphics was not enough; occasionally, we would have to post the graphics onto their maps ourselves. I know it sounds silly, but you have to pay close attention to detail in coordinating these types of operations. Poorly coordinated multinational operations can cost a unit dearly once the shooting starts.

Civil Affairs. Trained civil affairs (CA) personnel are indispensable in this type of operation. In Somalia, brigade and battalion fire support elements were used for CA because of the lack of available indirect fire assets and the restrictions on the employment of the assets we did have. (In five months, all we fired from our mortars was illumination rounds.) In a more robust LIC environment, however, the FSO will have to be doing his own job of planning, coordinating, and directing indirect fires. Furthermore, none of the combat arms officers were trained in CA operations, and their initial efforts were clumsy. Units involved in humanitarian or LIC operations should have dedicated, trained CA personnel assigned to them. The lack of them in Somalia led us to more than one best-guess solution.

The ability of the staff NCOs to run the TOC was absolutely critical to our success on more than one occasion.

The final overriding lesson I brought back from Somalia was the reaffirmation that you have to have good people. There were more than a few times—with the requirements coming thick and fast—when I thought we were at the limit of our ability to execute. In every instance, however, the company commanders, platoon leaders, and NCOs made it happen. The ability of the staff NCOs to run the TOC was absolutely critical to our success on more than one occasion. "Micromanagement" would not have worked. (A micromanager would have had to be MEDEVAC'ed after about a week.) Well-trained junior officers and NCOs who are capable of using their judgement—and who know that their chain of command trusts that judgement—bring success. You have to have good people to meet the challenges of operations other than war. Fortunately for our task force, we had them.

Lieutenant Colonel Martin N. Stanton was S-3, 2d Battalion, 87th Infantry, 10th Mountain Division, during its operations in Somalia. He previously served in the 2d Battalion, 2d Infantry, at Fort Lewis. He is a 1978 ROTC graduate of Florida Technological University.

The Mechanized Platoon
In a LIC Environment

LIEUTENANT TREVOR L. BYNUM

As a high-intensity conflict in open country becomes less likely, the use of heavy forces to augment light units in a peacekeeping role, or in a low-intensity conflict (LIC) environment, becomes more likely. Mechanized infantry units must therefore begin to examine new employment techniques to support these new missions.

Light-heavy rotations are now commonplace at the Joint Readiness Training Center (JRTC), and Bradley fighting vehicle (BFV) companies from various posts now train both there and at the National Training Center. A rotation to the JRTC gives a mechanized infantry platoon leader a rare opportunity to operate independently at platoon or section level. He will find, however, that mission requirements and operating techniques differ greatly from those on the typical mechanized company mission essential task list (METL). This was certainly the case in my company—Company A, 2d Battalion, 12th Infantry, 4th Infantry Division— during a rotation at the JRTC with the 2d Brigade, 6th Infantry Division.

The LIC phase of a JRTC rotation is characterized by a definite lack of a front line of troops, with about two companies of opposing force (OPFOR) operating in teams of five to eight men each. The OPFOR has no weapon heavier than a 60mm mortar and usually cannot mass in any size greater than a platoon. Their logistics system is based upon groups of well-hidden cache sites and what they can carry in their rucksacks or steal from the training units. The OPFOR soldiers enjoy free run of the wooded terrain, which enables them to snipe, ambush, and harass friendly troops and civilians.

In this environment, a mechanized platoon can expect changes in several areas:

Missions and Taskings. Because of a mechanized platoon's speed, firepower, and protection, a light unit will often give it missions and taskings a BFV platoon does not ordinarily perform. Because light units cannot effectively protect themselves from ambush attempts, convoy security is a constant requirement. Further, using the Bradley's thermal sights, the crew can see even well-camouflaged OPFOR in the woods. Road clearance and checkpoint missions allow light-skinned convoys to continue moving when there are not enough armored vehicles to accompany each serial. Constant movement and random routes keep OPFOR guerrillas guessing; any ambush they plan could see the arrival of heavy forces that they do not want to encounter.

To break the monotony of continual road patrolling, a mechanized platoon can halt and create a hasty checkpoint or vehicle control point. The vehicles can perform a semi-herringbone movement half off the road at designated hasty checkpoint locations, creating an "S" curve to slow oncoming traffic. The BFVs can then overwatch their dismounted troops, who establish local security and stop traffic as it moves through the interior of the platoon's herringbone. More permanent security points can also be set up. Heavy platoons should expect to be tasked to guard such critical assets as a forward landing strip, important road junctions, villages, or forward area refueling points for aviation assets.

Not all missions in a LIC environment will be so reactive or passive, as mechanized units make excellent fixing and finishing forces in a light unit's area of operations. A mechanized platoon may be designated as an on-call brigade reserve or may be placed under the operational control of a light battalion. As light units find and fix enemy elements, a Bradley platoon standing by can quickly move to finish them.

Despite terrain that is wooded and especially thick in low areas, prudent aggressiveness allowed us to pursue and finish OPFOR guerrillas, even in thick brush or trees. On several occasions, the Bradleys simply used their speed and mobility to overtake OPFOR soldiers and then dismounted their infantry to finish the job. Whenever BFVs are unable to maneuver on a fixed enemy force, the platoon can simply suppress until its own or friendly dismounts can move on the enemy. In this environ-

ment, however, the line of sight seldom extends beyond 300 meters.

The OPFOR typically resupplies from well-hidden cache sites (for which the S-2 section will create a list of possible locations), and the mechanized platoon is useful in searching the areas. A BFV platoon can cover areas faster than a light unit, and the dismounted squads can search while the vehicles provide overwatching security. The platoon can be moved directly upon the suspected cache site, even if it is down in a heavily vegetated creek bed. Again, the presence of the armored vehicles is a powerful deterrent to any OPFOR soldiers who may want to interfere with the searching dismounts. The destruction of the OPFOR's caches will seriously degrade his ability to fight. If BFV platoons are integrated into these search efforts, light units will be left with more manpower for personnel-oriented search and attack missions.

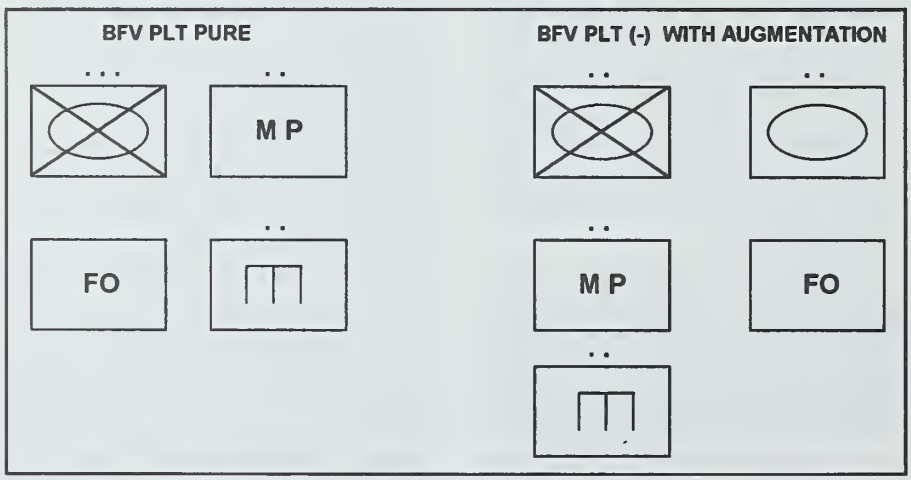
Since these missions are significantly different from the traditional mechanized infantry attack, defend, and movement-to-contact tasks, and because of the nature of the LIC battlefield, a mechanized company's assets are often diverted to other units throughout the area of operations. Bradley platoon and squad leaders will operate more independently than usual. When under the operational control of a light battalion, a Bradley lieutenant becomes something of a specialty platoon leader, and he must effectively communicate the things he can and cannot do for the light battalion. He and his light unit commander must agree upon the criteria for his employment in fixing and finishing missions. If they do not agree, the Bradley platoon could find itself chasing every sniper discovered in the battalion's area of operations. The Bradley lieutenant must also ensure that the light commander understands the wing-man concept and should resist efforts to break his platoon down lower than section level (each light company commander may want his own BFV to add to his unit's firepower). Finally, operational control is the proper relationship, since a light unit does not have the ability or the fuel to maintain its new heavy assets. A consideration: the Bradley platoons will have to leave the light unit periodically to refuel, rearm, and maintain if they cannot be resupplied on site.

Task Organizations. Given the variety of tasks—and depending upon an analysis of METT-T (mission, enemy terrain, troops, and time)—unfamiliar task organizations may have to be implemented at platoon level to accomplish assigned missions. Field Manual (FM) 7-98, *Operations in a Low-Intensity Conflict (LIC)*, provides a good beginning for tailoring a heavy platoon for a specific mission. In some instances, a section of military policemen (MPs) equipped with HMMWVs (high-mobility multi-purpose wheeled vehicles) can be added as checkpoint and road security experts. The wheeled vehicles also add extra firepower with their MK 19 grenade launchers and mobility when conducting searches for cache sights or ferreting out OPFOR soldiers.

We enjoyed a close relationship with the MPs at the JRTC; they would find and fix the OPFOR while our Bradleys and dismounts moved to finish them. We often attached one engineer squad in an M113 to the platoon to breach minefields or obstacles laid along roads or patrol routes. Since two tank platoons accompanied Team A to the JRTC, tank sections were sometimes sliced to the BFV platoons for added firepower and shock effect. This also kept the tanks close to the infantry, because they could not effectively secure themselves without friendly dismounts. Sections were often cross-attached between the tanks and the BFVs, creating MP and engineer-enhanced maneuver elements on the LIC battlefield. A mechanized platoon leader can therefore quickly find himself with a variety of potent but unfamiliar assets to use in accomplishing his LIC missions.

Assembly Areas. The fluid and unsecured nature of the LIC environment demanded some fundamental changes in the way assembly areas were selected and conducted, at both company and platoon levels, when platoons were sliced to various missions. Since there was no safe haven to locate, and because there was an air threat only during daylight, all heavy team assembly areas jumped at least twice a day. During the day, assembly areas were located in the woods to conceal them from enemy aircraft. Since the OPFOR would not try a daylight assault, they were also safe from enemy dismounts. At dusk, as the enemy air threat evaporated, mechanized units would move into open fields to force OPFOR dismounts into the open and in full view of thermal sights or night vision devices.

Our assembly areas always had roving guards who checked the interior and the perimeter for any infiltrating OPFOR soldiers carrying satchel charges. Security and scanning were done with AN/PVS-7s, because the noise of the vehicles' moving turrets and running engines often gave away our



Bradley platoon LIC environment task organization.

locations. Short counts were conducted periodically through the night. All vehicles would run their engines for half an hour to charge the batteries and then use the thermal sights to sweep their section of the perimeter to pick up anything the guards may have missed with their AN/PVS-7s. After half an hour, all the vehicles were shut down and passive security was reestablished. To further enforce noise discipline, radio watch was conducted with the volume turned down as low as possible and the guard listening only to the hand mike.

Using these techniques, we lost no vehicles to the OPFOR while in an assembly area. Subsequent after-action reviews revealed that OPFOR assets had moved through the area of operations all night, often vainly attempting to find our vehicles. The OPFOR that did try to penetrate our assembly areas were soon identified and caught by the designated quick-reaction force.

Force Sustainment and Logistics. Refueling and resupply could not be conducted in the traditional way. Seldom was the entire company together often enough for the executive officer and the first sergeant to bring logistical packages (LOGPACs) out in quantity. Differing mission requirements often dictated that platoons resupply whenever they could. They would meet at a company LOGPAC site, resupply, and then return to their separate missions. When such service station resupply operations were not possible, tailgate resupply had to be performed at various locations. Under such circumstances, the platoon leader or platoon sergeant who was not with the company main body had to coordinate directly for resupply. Convoy escort or road security missions would often take a platoon by the brigade support area (BSA), where it would enter and resupply directly from the source.

Since distances in a light infantry environment are compressed, from a mechanized infantry viewpoint, a Bradley platoon under the operational control of a light unit could coordinate to move back to the BSA and resupply there. Since most of the vehicle maintenance assets were there, the BSA was also often an ideal location in which to perform maintenance. Under the conditions imposed by a LIC battlefield, platoon level initiative and flexibility are the keys to sustaining the ability to fight.

As light and heavy infantry units work more closely, there may be less separation between them in the near future. Many mechanized units are already changing their focus as they add operations in urban terrain to their METLs, rotate through the JRTC with a light brigade, or deploy on peacekeeping missions to various parts of the world. For the Bradley platoon, this means a nuts-and-bolts reassessment of the way it will fight—one that takes into account more independent operation, new types of missions and taskings, and closer working relationships with soldiers of other branches and specialties.

Lieutenant Trevor L. Bynum led a platoon in Company A, 2d Battalion 12th Infantry, 4th Infantry Division, and is now the company executive officer. He is a 1991 graduate of the University of Pennsylvania.

The Battalion Maintenance Officer

In Civilian Support Operations

CAPTAIN KURT A. SCHLICHTER

In recent years, natural disasters and civil disturbances have shown that both Active Army and Reserve Component units must be prepared to carry out civilian support operations (CSOs). These are typically operations in which military forces are called upon to assist civilian emergency service personnel.

In recent years, both Active and National Guard units have deployed to quell riots and to help in areas devastated by hurricane, flood, or earthquake. The units of the California Army National Guard were deployed throughout Los Angeles during the riots of 1992 and again following the earthquake in January 1994. *(See previous INFANTRY articles, "The Los Angeles Riots: A Battalion Commander's Perspective," January-February 1994, and "Earthquake '94: Operations Other Than War," November-December 1994, both by Lieutenant Colonel William V. Wenger.)* In each of these cases, units had to operate in an environment that was quite different from the traditional battlefield.

Like all the other staff officers, battalion maintenance officers (BMOs) have to adjust to this nontraditional battle-

field. Having served as BMO in the 3d Battalion, 160th Infantry, during the riots and after the earthquake, I would like to share a number of special considerations for the BMO in such operations:

Dispersed Units. Units are typically spread across a vast area, often in teams or squads, providing security at such places as banks, shopping malls, and relief centers. In this kind of environment, a battalion's support assets are stretched thin. During the mobilizations in Los Angeles, for example, units of my battalion were spread over hundreds of square miles at literally dozens of locations.

The BMO may be called upon to repair or recover vehicles in outlying positions 20 or 30 miles from the location of his maintenance assets. Maps are essential, even when Guardsmen are fairly familiar with the area of operations. Every vehicle must have a street map before it rolls.

Combat Service and Combat Service Support. The support elements a BMO normally relies on for support may not be available. Sometimes there are no Reserve or Active Army support forces in the area, or the first units mobilized are those that can have an immediate effect on the situation, such as infantry and military police, with support units to come later. Meanwhile, the BMO must rely on his own organic assets.

For this reason, the BMO must see that the basic parts load is always be up to date. Parts may be hard to get through normal Class IX channels. He may have to buy such common items as bolts and screws from civilian auto parts stores, either through authorized purchase or out of his own pocket. One alternative when the regular system is not responding is the state National Guard's technician maintenance system. With coordination, both Guard and Active units can use this valuable resource. One problem is that higher Class IX priorities may not be immediately authorized for units mobilized for CSOs. In an emergency, this authorization should be one of the first actions for the command's logistics staff.

Communications. Communications are as critical to the BMO as to anyone else in a unit. The traditional FM communications equipment may not function well in an urban environment, and early in an emergency, civilian wire telephone systems are usually overloaded, if they are operating at all. After the earthquake, our battalion found that most of the phone lines in the area of the major damage were completely out. Many civilians were calling to check on relatives, including those serving at our armory; it was two days before someone trying to call back to the soldiers at the armory could be confident of getting through in only two or three tries. Maintenance assets operating from armory facilities have the same problems.

Cellular phones belonging to the soldiers themselves, along with civilian radio systems from the county government, provided the battalion with invaluable communications capabilities. But everyone wants access to such equipment when it becomes available, and the BMO must make sure he has at least one set for himself and one for a recovery team, making his case directly to the commander if necessary.

Location of Maintenance Assets. Doctrine clearly lays out where on the battlefield the maintenance assets should be located, but CSOs require more flexibility. The command post system changes dramatically, and rapidly changing areas of responsibility keep the staff constantly on the move. The BMO must do his best to select a stable, central location from which to operate.

During the earthquake mobilization, most of my maintenance assets remained at our armory, about 25 miles south of the battalion's main area of operations, using the organizational maintenance shop (OMS) facilities. Forward was a recovery team consisting of a wrecker, a parts truck, and my HMMWV (high-mobility multipurpose wheeled vehicle), all with FM radios for short-range communications. The battalion maintenance technician and the communications repair sergeant also came forward. I located the unit maintenance collection point (UMCP) in the parking lot of a devastated shopping center that also served as a rally point and feeding point for troops rotating in and out of security missions. With most of the vehicles rotating past us at some point during each day, the recovery team could make small repairs or help operators with their own maintenance in the huge, empty lot. The battalion commander and the S-3 also used the lot as a command post, and being face to face with them made our communications considerably easier.

Operator Maintenance. Operator maintenance was critical to equipment readiness. Understanding that only proper preventive maintenance checks and services (PMCS) procedures and a strict adherence to regulations would ensure that readiness, the battalion commander ordered random checks of daily Department of the Army (DA) Forms 2404 (to ensure that PMCS was being done), DA Forms 1970 (to ensure that proper dispatch procedures were being carried out), and spot checks of operator licenses. Again, having the maintenance unit at the site eased this critical inspection process.

Local National Guard and U.S. Army Reserve armories may also have OMS facilities. Police and other municipal agencies often have motor pools with repair shops, and civilian facilities may be available as well. Garages and gasoline stations offer the advantage of state-of-the-art equipment and also such facilities as toilets, phones, and running water. Many owners are more than willing to have the soldiers in their facilities for the added security. In fact, many property owners came to us offering the use of their facilities during both activations.

Recovery. Our recovery missions generally came in by civilian radio or by messenger. Upon receipt of a request for support, we would evaluate the repair requirement with a view toward fixing the vehicle as far forward as possible. A contact team would then be dispatched with the tools and parts that might be required. In cases where evac-

uation was necessary, the vehicle would be returned by wrecker to the UMCP or to the OMS for more extensive service. This system helped put deadlined vehicles back on the road as soon as possible.

Later, when armored personnel carriers were pre-positioned at local armories in anticipation of a possible riot situation, the maintenance section made arrangements to use the transport trailers if recovery became necessary. Although it may seem obvious, a BMO must ensure that he is prepared to recover any equipment his unit might use; if buses are used, for example, a civilian wrecker may be needed, and such details should be worked out before mobilization.

The most difficult recovery operations take place in civil disturbance operations. At some point, a vehicle may have to be recovered amid hostile civilians; television pictures of a military vehicle being burned may have a dramatic effect on public confidence and contribute to further lawlessness. Getting inoperative vehicles back to secure areas is therefore critical.

In our battalion, elements of the battalion scouts and mortars operated as a quick reaction force (QRF) under the control of the S-3. In anticipation of such contingencies, the QRF platoon leader and I created a tentative plan in which a recovery team, with security provided by elements of the QRF, would move in quickly and recover a damaged vehicle. The BMO should ensure that the forces selected to perform such a mission make this part of their CSO mission essential task list and train on it before the need arises.

The keys to successful maintenance in civilian support operations are creativity on the part of the BMO and a dedication to proper maintenance on the part of every leader in the unit. The best repair is one that never has to be made, but when the maintenance section does have to swing into action, a little advance planning and coordination will pay off in terms of both safety and readiness.

Captain Kurt A. Schlichter is BMO of the 3d Battalion, 160th Infantry, California Army National Guard, which was activated during the Los Angeles riots and after the earthquake. He previously served on active duty as a platoon leader in the 2d Combat Support Command in Germany and the Persian Gulf. He recently completed a law degree from Loyola University.

Parallel Planning

Managing the Information Flow

MAJOR ANTHONY R. GARRETT

The "information war" has been a subject of much discussion recently. To prepare for that war, the Army has implemented a strategy that will provide command, control, communications, and intelligence systems that are reliable in terms of the timeliness of information and the ease and speed of maintenance.

Viewed from a small-unit planning perspective, this strategy suggests that the decision making process will be compressed and the operational tempo accelerated as information becomes more readily available, thereby permitting faster analysis and execution. By implication, the time available under the one-third, two-thirds rule associated with sequential planning will decrease without a corresponding reduction in require-ments. In addition, information flow is likely to become continuous, in effect relegating sequential planning to a secondary role, except in the early stages of operations when enough planning time is available.

Given this situation, it is critical that the battalion commander and his staff implement a planning process that takes into account the implications of the information war. I believe a parallel planning process will be critical to success on tomorrow's battlefield.

Because parallel planning seeks to take advantage of the time available, all planners must proceed from a common understanding of a clearly defined, achievable goal—the task and its purpose. The commander's intent establishes this common ground: It articulates the commander's vision of success, the effect of the operation on the enemy, and the end state following the operation; and it concludes by establishing the criteria for success and providing direction to leaders and planners.

Parallel planning, by both design and necessity, is continuous. It must have efficient communications and staff procedures to ensure a continuous exchange of information, both vertically and horizontally. The obvious danger of such a system is that the staff will flood the battalion and company commanders with information that is not critical to parallel

Action	Bn Time	Product to Companies	Co Time	Product to Platoons
1. Receive Mission/Analysis				
2. Issue WARNORD (15 min)		Mission, AO, Task Org, Time Schedule		Mission, AO, Task Org, Time Schedule
3. Make a Tentative Plan				
4. Initiate Movement		Movement FRAGO		Movement FRAGO
5. Initial Recon Instructions		Zone/Sector & Assets		Zone/Sector & Assets
6. Develop/Update Estimates		Critical CS/CSS data		Critical CS/CSS data
7. COA Development/Wargame				
8. Decision Brief/Cdr Guidance		Planning guidance		Planning guidance
9. Issue WARNORD		WARNORD w/overlay		WARNORD w/overlay
10.Prepare OPORD/Ex-Matrix				
11.Issue OPORD/Ex-Matrix		OPORD/ExMatrix		OPORD/ExMatrix
12.Cdr Backbriefs		TACSOP format		TACSOP format
13.Supervise/Refine Plan		Staff Assistance		Co Cdr's supervision
14.Rehearsals		TACSOP format		TACSOP format
15.Air Mission Briefing (AMB)		Movement plan		Movement plan
16.H-Hour				

Parallel Planning Timeline

planning. The submission of lengthy reports at specified times, often during peak planning periods, can also create a large volume of information that the staff members must analyze before presenting it to the battalion commander and the company commanders. During this time-consuming process, critical information may be overlooked.

A useful guide for determining the information that warrants dissemination is the commander's critical information requirements (CCIRs). The CCIRs further redefines the commander's intent, thus giving the staff and the company commanders a planning focus.

The CCIRs takes three forms:

Priority intelligence requirements (PIRs), which help the commander decide what he wants to know about the enemy and the battlefield.

Essential elements of friendly information (EEFIs), which help the commander determine how the enemy sees the friendly unit.

Friendly forces information requirements (FFIRs), which help the commander determine how the unit sees itself.

The battalion executive officer (XO) plays a significant role as the unit information manager in the parallel planning process. Specifically, he oversees and monitors the staff's duties, functions, and responsibilities in processing information. The CCIRs enable the staff and the company commanders to use the available time efficiently, but it is the XO who must see that the staff adheres to the planning timeline and stays focused on the mission.

Identifying the planning products that are essential to the companies at any given point in the process should not be left to subjective judgments. The staff should have a standard template that identifies the critical items the subordinate units need to support their planning efforts.

A useful tool for identifying the company commanders' essential planning products is the parallel planning timeline matrix shown here. The *Action* column of the matrix identifies the critical events of the planning process. In addition to the steps of the troop leading procedures and the tactical decision making process, units may tailor the list on the basis of tactical SOP requirements. The *Battalion Time* column reflects the mandated staff completion time for each event. The battalion XO and S-3 develop this timeline and submit it to the commander for approval.

The timeline serves two primary purposes: It establishes suspenses for the staff and helps focus their efforts; and it notifies the company commanders when they can expect to receive certain planning products. With this information, the commanders can develop a timeline for convening the orders group, beginning preliminary planning, and other events.

The absence of an entry in the *Products to Companies* column implies that the staff is working on an event listed in the *Action* column and that no product will be forthcoming until the staff has completed that action. The remaining columns, *Company Time* and *Product to Platoons*, are for the company commanders' use in conducting parallel planning.

Warning orders are issued on at least two occasions as the primary methods of transmitting the information critical to parallel planning. Leaders and planners therefore should not feel constrained by this matrix; in fact, experience suggests that there will be more warning orders instead of fewer.

The parallel planning process ensures that the available planning time is used effectively and that the result is a coherent, focused operations order or plan. Critical to this process is a clear articulation and understanding of the commander's intent. Parallel planning also implies intellectual and operational flexibility instead of the rigid, methodical process often associated with sequential planning.

In future conflicts, battlefield information systems will reduce planning time and simultaneously increase the demand for real-time analysis and decisions that are attainable only through mental agility. In such an environment, only parallel planning will be able to respond to competing demands by focusing a battalion's efforts without sacrificing flexibility and speed of execution.

Major Anthony R. Garrett is assigned to the Office of the Assistant Deputy Chief of Staff for Operations, Department of the Army. He previously served as a company commander in the 5th Battalion, 20th Infantry, 2d Infantry Division, and as S-3, 2d Battalion, 22d Infantry, 10th Mountain Division. He is a graduate of Georgetown University and is pursuing graduate studies at Johns Hopkins University.

Slim, Rommel, and Preventive Medicine

LIEUTENANT COLONEL BENJAMIN G. WITHERS

Commanders, not medical officers, are ultimately responsible for the health of their commands. Preventing disease and non-battle injury is a key measure leaders can take to achieve their tactical and operational goals.

The actions of two World War II generals will illustrate the commander's influence on disease prevention: German Field Marshal Erwin Rommel in North Africa, 1941-1943, and British Lieutenant General William Slim in the China-Burma-India theater, 1943-1945. In general, Rommel was negligent, while Slim was diligent. Their respective actions significantly affected the outcome of their campaigns and provide lessons for today's professional line officers and medical department officers alike.

Rommel in North Africa

In the Spring of 1941, after the Italian defeat in Libya by the British, Rommel and the Africa Corps arrived in North Africa to secure Germany's southern flank. Over the next two years, Allied and Axis forces fought back and forth across North Africa. The ultimate German defeat in North Africa rested largely on tactics, logistics, and personnel.

In the harsh desert environment, the main medical threats were dehydration, dysentery, hepatitis, and malaria. Despite his tactical and operational prowess, Rommel seemed to devote little attention to health matters. He seemed to have little interest in measures to sustain the health of his force, and the German Army as a whole seemed to have a poor knowledge of preventive medicine.

His book *The Rommel Papers* contains fewer than 10 references to health problems, all of them superficial. It is difficult to defend Rommel by arguing that his intent was to treat only tactics and strategy in the book, since he often discussed supply problems in detail.

The manner in which Rommel and others wrote about disease prevention suggests either a lack of understanding or a sense of resignation. In fact, some of Rommel's comments appear trite or even naive. For example, concerning mosquitoes, he writes of "shooting a lot of them down," and in one comment blames sickness on "bad rations." Nowhere does he address his force's health problems methodically, analytically, or in a manner that suggests possible solutions. Some German officers writing of that period admit that there were serious field sanitation and hygiene problems, while others deny them. Most, however, took a fatalistic view of maintaining health in the desert environment. Major General Alfred Toppe wrote, "There are flies wherever there are people. At first, the troops had no effective means to combat them. . . . There was no way of preventing infectious diseases, such as dysentery and contagious jaundice, from spreading."

Instead of trying to maintain health by preventing disease, the Germans employed medical screening exams to cull out the unfit in Germany before deployment and relied upon one-year tours to exploit the grace period before the men became diseased or physically spent.

There is objective evidence that the Germans paid little attention to field sanitation and hygiene. British soldiers who observed German camps, treated German prisoners of war, and interrogated German soldiers and doctors reported a general disregard for field sanitation among German troops and, not surprisingly, diarrhea rates of 40 to 50 percent in some front-line units. Cleaning captured areas was an unpleasant task because of the filth encountered. One British hygiene officer wrote:

That portion of the battlefield previously occupied by the enemy is just one huge fly farm, and has to be seen to be believed. Whilst both Germans and Italians order the use of shallow trench latrines (and no oil seal), this order is scarcely ever carried out. (H.S. Gear, "Hygiene Aspects of the El Alamein Victory, 1942," *British Medical Journal*, March 1944.)

Prisoners of war were often louse-infested, and all of them had to be treated. During 1942, German attrition rates in North Africa from disease averaged 130 per 1,000 men per month, while British rates averaged 50 per 1,000.

Slim in the *CBI* Theater

From January to May 1942, the Japanese 15th Army invaded Burma, defeating the combined British, Burmese, Indian, and Chinese forces.

The British Army retreated north through Mandalay and west into India. In late 1943 Slim organized the British 14th Army, made up primarily of English and Indian forces and, during 1944, retook northwest Burma. From January to May 1945, they pushed south to regain Burma and occupied Rangoon on 2 May 45. Japanese resistance was effectively terminated.

In the absence of a public health infrastructure, many diseases thrive among armies in tropical environments, and the China-Burma-India theater was particularly harsh. The main medical threats were malaria, dysentery and diarrhea, skin diseases, and scrub typhus. Dysentery and diarrhea were so common that one in ten British troops fell victim to it during 1942, when conditions were at their worst. By his own efforts, mostly geared toward prevention, Slim greatly improved the health of his command.

In *Defeat Into Victory*, he frequently discusses disease and health service support issues. Shortly after taking command, he formally assessed the health of his force and therefore knew the causes of his soldiers' excessive rates of disease and non-battle injuries. This assessment led him to conclude that there was not "much use trying to increase our hospital accommodation; prevention was better than cure. We had to stop men going sick, or, if they went sick, from staying sick." By continually monitoring such key health indicators as hospital admission rates, he kept abreast of the health of the army, using graphs in his office.

Slim took several actions to prevent disease in the 14th Army. First, he assembled teams of scientists and physicians to conduct field research and apply this knowledge to prevention and treatment. He aggressively tackled medical discipline (field hygiene and sanitation) by issuing orders covering various personal and collective measures, such as not bathing after dark and taking antimalarial medicine under supervision. His said that "good doctors are no use without good discipline" and that "more than half the battle against disease is fought . . . . by the regimental officers."

Moreover, he enforced his medical plan, even to the point of relieving commanders who were guilty of poor medical discipline. Additionally, he concentrated on forward treatment for both medical and surgical patients, instead of evacuation to India. Where evacuation was necessary, he made maximum use of aircraft to reduce or eliminate long-term aftereffects of disease.

Through his various preventive and curative efforts, Slim achieved significant improvements in the health of the 14th Army. His subjective observation was that "slowly, but with increasing

rapidity, as all of us, commanders, doctors, regimental officers, staff officers, and NCOs, united in the drive against sickness, results began to appear."

The disease attrition rate dropped from 360 per 1,000 men per month in 1943 to 30 per 1,000 in 1945. Previously, men with malaria had been evacuated to India for treatment and did not return for five months, if at all. Through use of forward treatment units, time lost to malaria decreased from five months to three weeks, and the 14th eventually gained a reputation for good health. (Though Slim denied it, some accused him of choosing disease-ridden areas in which to engage the Japanese, to take tactical advantage of his superior preventive medicine.)

Rommel and Slim were, of course, commanders in different theaters and had to deal with different problems using different resources. And, in fairness to Rommel, it must be noted that his papers were edited and published after his death, while Slim lived to write his own story. Also, the German Army had had little experience campaigning outside continental Europe before World War II, while the British had been operating in tropical environments (Africa, the Middle East, and Asia) for more than two centuries. Slim himself was a member of a Gurhka regiment and had served extensively in India between the wars.

Nonetheless, Slim and Rommel stand as examples of the right way and the wrong way to practice field preventive medicine. If the final responsibility for the health of the command falls on the commander, Rommel's reputation must be called into question. He seems to have done little to counter the preventable diseases that decimated his Afrika Korps, and the severe personnel attrition within his forces was a key factor in his ultimate defeat.

Slim faced similar problems but took aggressive action that restored the health of his command and earned him an honored place in the history of military medicine. Ultimately, the 14th Army drove the Japanese out of Burma, largely due to its good health. By Slim's account, victory would otherwise have been impossible.

Lessons for Today

Professional soldiers, both line and medical, can take many valuable lessons from both Rommel and Slim, beginning with the importance of initial health assessment and continuing medical surveillance. Resources that are put into medical research and development are generally well spent. The leader must emphasize the prevention—not just the treatment—of disease and non-battle injuries. The medical officer can design and promote a sound medical support plan, but preventive medicine programs, if they are to succeed, must have vigorous support from the commander.

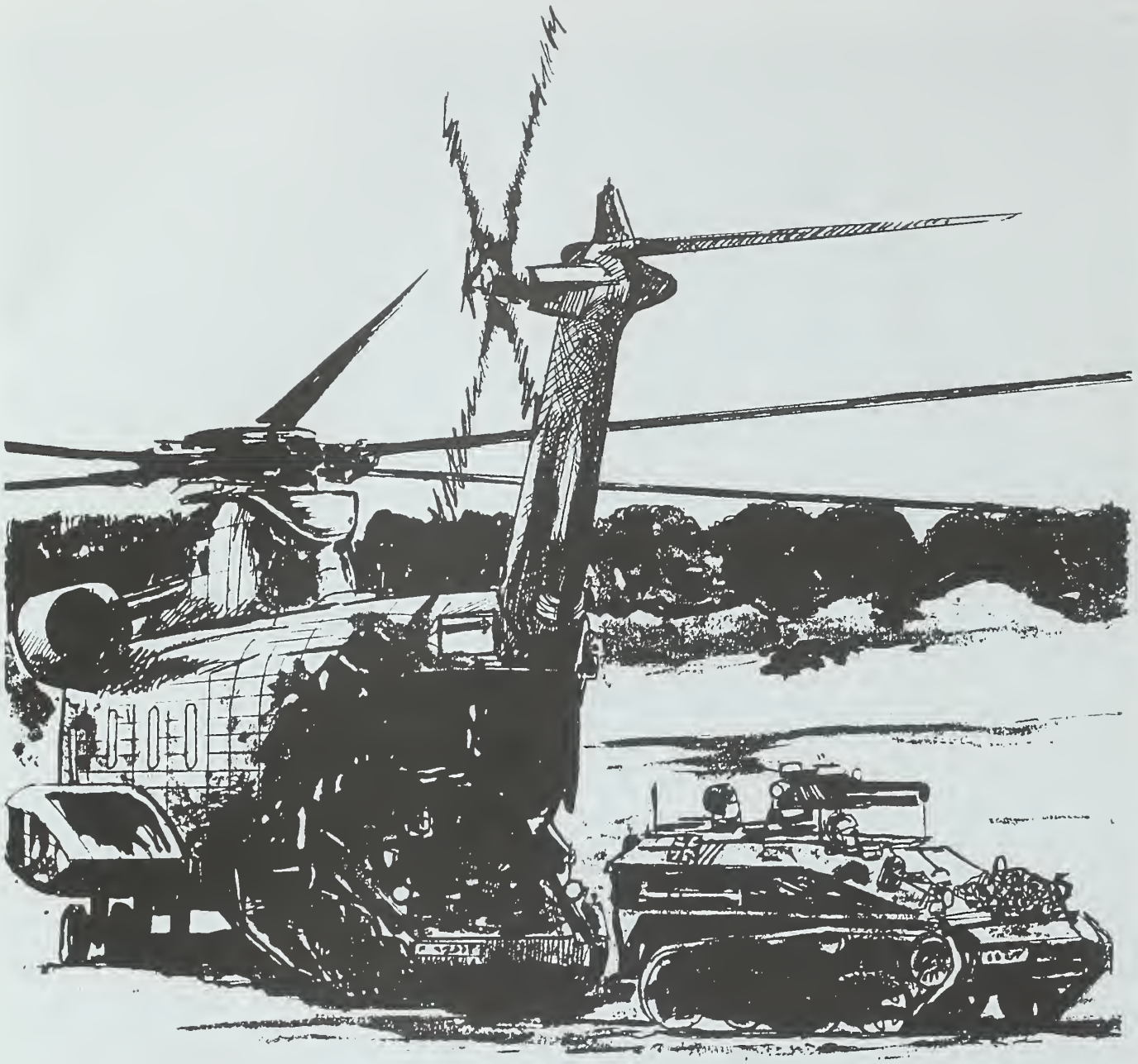
Lieutenant Colonel Benjamin G. Withers, who began his career as an infantry officer in the 82d Airborne Division, is the Chief of Preventive Medicine at the 51st Combat Support Hospital, Frankfurt, Germany. He previously served with the forces in Operation RESTORE HOPE, in Somalia. He is a 1974 graduate of the United States Military Academy.

FIFTY YEARS AGO IN WORLD WAR II
January-February 1945

In the opening months of 1945, the jaws of yet another Russian winterhad closed upon the armies of Germany and her allies. From the Baltic to the Adriatic, Soviet offensives were under way, inflicting irreplaceable losses in men and materiel. Allied gains in France threatened the borders of Germany herself, and the Italian peninsula was being painstakingly liberated in spite of determined resistance. The Japanese had even less cause for optimism in the Pacific; in the Philippines, assault convoys were massing in Leyte Gulf for the invasion of Luzon, while U.S. bombers and naval vessels hammered Japanese land, sea, and air forces. In spite of the fatigue of several years of combat, U.S. soldiers, sailors, Marines, and airmen demonstrated that they were still ready to press the fight until the job was done, and the extraordinary number of servicemen who earned the Medal of Honor in the last year of the war attests to their sacrifice.

These and other highlights of World War II are excerpted from Bud Hannings' A Portrait of the* Stars and Stripes, Volume II, *available for $50.00 from Seniram Publishing, Inc., P.O. Box 432, Glenside, PA 19038.

2 January	*Japanese aircraft, including Kamikazes, are hurled against assault convoys assembling in Leyte Gulf for the attack on Luzon.*
7 January	*When enemy machinegun fire jeopardizes his unlt, Staff Sergeant Curtis F. Shoup, Company I, 46th Infantry, assaults the position with his automatic rifle. Although gravely wounded, he presses the attack and destroys the machinegun with a grenade. He is posthumously awarded the Medal of Honor.*
21 January	*The Second White Russian Front seizes Tannenberg, in East Prussia, as the First White Russian Front and the First Ukrainian Front move into Silesia, near Germany's border with Poland.*
23 January	*The U.S. 7th Armored Division punches through stubborn German resistance, clearing a corridor into St. Vith.*
3 February	*The 1st Battalion, 311th Infantry Regiment, crosses the Roer River by swimming and captures Dedenborn, while the 60th Infantry Regiment captures Dreiborn and Herhahn.*
10 February	*The 82d Airborne Division overcomes bitter resistance to seize high ground overlooking the Roer River east of Bergstein.*
13 February	*After a seige lasting a month and a half Soviet forces take Budapest.*
19 February	*At daybreak, the 3d, 4th, and 5th U.S. Marine Divisions land on Iwo Jima, beginning some of the bloodiest fighting of the war. Marines raise the Stars and Stripes on Mount Suribachi at 10:31 in the morning.*
28 February	*The U.S. 2d Armored Division drives to within six miles of the Rhine.*



The German Airborne Antitank Battalion

And the Wiesel Armored Weapon Carrier

LIEUTENANT COLONEL WOLFGANG METTLER, GERMAN ARMY

During 1994, the Wiesel airborne weapon carrier was deployed to Fort Bragg for airdrop and further testing by the U.S. Army's Test and Experimentation Command, while it was concurrently undergoing a series of tests by the German Army at Manching and at the German airborne school at Altenstadt. Both series of tests were successfully concluded. With the Wiesel 1, the German Army has at its disposal a combat vehicle of unlimited deployability for the airborne forces, and one which is the basis of the German Army's newest unit, the airborne antitank battalion. In this article, I would like to discuss the possibilities offered by this new battalion organization, as they apply to both of our nations.

For U.S. early entry forces such as the 82d Airborne Division, one or more airborne battalions appropriately equipped

with the Wiesel would have at their disposal units that, after strategic air transport and landing, would possess high mobility and high combat power, and would be highly useful in combat. Moreover, "tactical leaps" (airmobile operations) would be possible—depending upon the situation, the mission, and the terrain—with transport helicopters for overwatch missions, counterattacks, blocking actions, or the formation of strongpoints.

Personal Observations

These new requirements in the context of an expanded mission can no longer be executed to the same extent by all units of any Army.

Next to the main defensive forces which will represent the backbone of national defensive capability after mobilization, it is the crisis reaction forces (CRF) that will have to serve as rapid reaction components. These crisis reaction forces will have to be designed, equipped, and trained for the entire spectrum of possible employment to meet the new missions. This is especially applicable for the airborne/airmobile and hence light combat forces of the CRF and can even include operations other than war.

The rapid availability of units and their problem-free transport for humanitarian missions may not be the only consideration. It perhaps matters little to facilitate the easy exchange of units and companies by means of task organization. What does matter is to have at one's disposal for different missions the ideal units to deter the potential enemy in the area of operations by sheer combat power, and—when needed—the units that possess the ability to conduct the fight in a highly mobile manner and with a strong capability for accomplishing the mission.

An additional consideration is that of both maintaining and expanding the specific capabilities of the branches of the Infantry according to the various demands of combat. The airborne antitank battalion is one contribution toward having the optimal type of battalion for specific missions, as a highly mobile and mission capable special airborne unit within the framework of an airborne brigade, and the present organization offers several possibilities.

Armament and equipment fundamentally determine the principles of employment. On the eve of World War I, the disregard for the machinegun that was coming into use turned maneuver warfare into trench warfare, but at the end of the war the emergence of the tank made maneuver again possible in spite of machinegun fire. Following World War I, visionary military thinkers formed the armor into an element that made possible extensive, enveloping movements by means of the massing of forces, movement, and firepower. The early days of World War II saw the classical formation and employment of armor in combination with the air forces and large follow-on motorized units.

Today, we have in essence an armor force that is highly evolved technologically, tactically, and operationally, but whose capability for rapid mobility and momentum can be clearly restricted by modern countermobility measures. Modern intelligent mines, launched by rockets or tube artillery, or

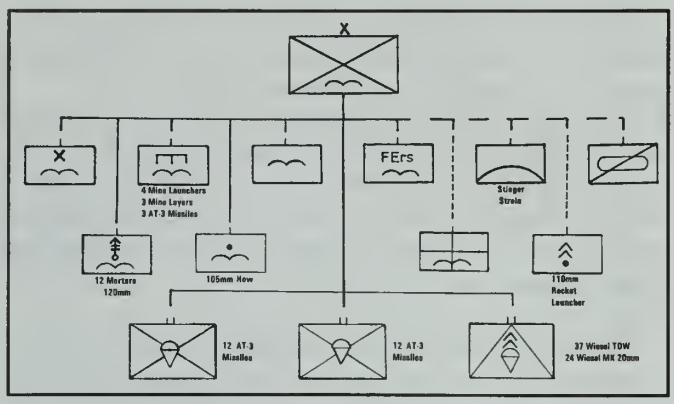


Figure 1

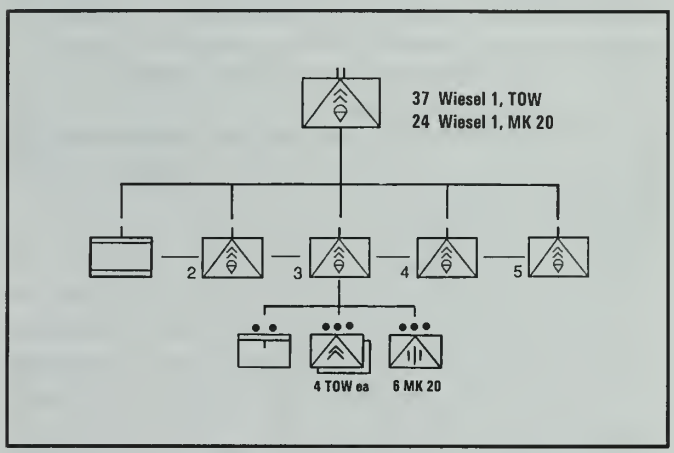


Figure 2

laid by engineers, can bring the movement of large armored forces to a halt.

Extensive minefields more than four to six kilometers wide and of corresponding depth can be laid within minutes, or fired in advance of large armored units in the attack. The clearing of minefields can be rendered more difficult, or even impossible, by the insertion of intelligent mines. Lanes cleared at the cost of heavy casualties can be once again closed within a few minutes.

To be sure, these possibilities do not call into question the fundamental role of armor as a combat arm, but they do lead to rethinking and reflection in such areas as branches of the service, armament, equipment, and the principles under which the force is to be employed. In the context of such developments, a unit that can rapidly bypass these and other impediments—while retaining its combat capability—through the use of the dimension of air mobility achieves a new significance.

(The airborne brigade organization is shown in Figure 1 and the airborne battalion organization in Figure 2.)

The Airborne Antitank Battalion

With its 61 Wiesel air-transportable armored weapon carriers, the battalion is a highly mobile and combat capable special unit within the organization of the airborne brigade that should more appropriately be called "The Wiesel Infantry Battalion." The battalion will fight on the basis of the equip-

ment of the Wiesel, and not necessarily according to the principles that govern the employment of the antitank, armor, mechanized infantry or reconnaissance forces.

This type of battalion fights as a "pursuit" formation through its exploitation of large areas, in which it compensates for its lack of shock effect by its high mobility and flexibility of combat operations, thereby combining optimal use of terrain with constant movement, interrupted only by stops for observation, to engage targets by fire, and to occupy covered positions.

The special nature of this battalion is marked by its air transportability, its readiness for action immediately upon dismounting from its prime mover, its high mobility in the area of operations, and the combat power of 37 TOW Wiesel weapon carriers and 24 Wiesels with the 20mm machine cannon.

In its actual employment, the airborne antitank battalion goes from the basic organization to the organization for combat (see Figure 3), which takes into account the temporary principles of employment, as well as the experience gained and collective ideas.

The following planning considerations apply to the employment of the Wiesel:

- A mix of TOW and 20mm cannon Wiesels is ideal.
- The 20mm machine cannon escort Wiesel for the battalion commander is supplied by an airborne antitank company.
- The battalion commander and company commanders command from TOW Wiesels.
- The company command post (CP) is run by the command and control vehicle of the airborne antitank company.
- The command and control vehicle of the battalion commander remains at the battalion CP and is at the disposal of the S-3.
- The trucks designated for ammunition transport are pooled at the company CP in order to ensure availability of ammunition, as well as to be available for general transport.

An airborne antitank company employed in a combat reconnaissance role is doctrinally organized as shown in Figure 4.

The battalion commander directs the unit either in person or by radio directly from his Wiesel, at the point of decisive action or immediately behind the point of the attack. In this way, the command vehicle cannot be differentiated from the other TOW Wiesels on the battlefield.

Commanders, particularly when the battalion is rapidly moving, must understand the concept of leading from the front. In doing so, another Wiesel with cannon must be prepared to provide overwatch for the command vehicle.

By its very nature, the airborne antitank battalion is especially capable of conducting without delay a tactical, operational, or strategic repositioning in the form of air movement or tactical ground movement day or night, on any terrain and under any weather conditions. Moreover, the unit's tactical mobility can be even further increased by the air transport assets of Army aviation.

After vertical envelopment, the battalion is also especially suited for such forms of battle as the delay and the defense.

UNIT	COMPONENT UNITS	
	Air Echelon	Ground Echelon
	1 Wiesel 1, TOW 1 Command/Control Vehicle	5-ton Truck, 1SG HQ Section 2-ton, S-3 Ops Sgt
I	3 Wiesel 1, TOW 2 Wiesel 1, MK 20 2 2-ton Ammunition Vehicles	
II	3 Wiesel 1, TOW 2 Wiesel 1, MK 20 2 2-ton Ammunition Vehicles	
III	2 Wiesel 1, TOW 2 Wiesel 1, MK 20 2 2-ton Ammunition Vehicles	

Figure 3

FORCES	RECON SECTION	SECTION LEADER
1 Wiesel 1, TOW, Co Cdr 1 Wiesel 1, MK 20	1	Company Commander
2 Wiesel 1, TOW 1 Wiesel 1, MK 20	2	1st Pletoon Leeder
2 Wiesel 1, TOW 1 Wiesel 1, MK 20	3	Squad Leeder, 1st Pletoon
2 Wiesel 1, TOW 1 Wiesel 1, MK 20	4	2nd Pletoon Leeder
1 Wiesel 1, TOW 1 Wiesel 1, MK 20	5	Squed Leeder, 2nd Pletoon
1 Wiesel 1, TOW 1 Wiesel 1, MK 20	6	3rd Pletoon Leeder

Figure 4

GENERAL CHARACTERISTICS

	WIESEL MK 20	WIESEL TOW
Combat Weight	3.1 short tons	3.1 short tons
Crew	2 men	3 men
Overall length	11.63 feet	10.86 feet
Width	5.97 feet	5.97 feet
Overall height	5.99 feet	6.22 feet
Armament	OM 6, 20mm machine cannon in turret	TOW launcher
· Traversing range	± 110 degrees	± 45 degrees
· Elevating range	- 10 to + 45 degrees	± 10 degrees
Muzzle height	5.38 feet	5.89 feet
Ammunition storage	400 rds of 20mm	6 TOW missiles inside 1 TOW missile mounted
Night vision, weapon	Image intensifier telescope PERI Z 16	Thermal image system AN/TAS 4
Night vision, driver	Image intensifier periscope	Image intensifier periscope
Engine	VW 5-cylinder diesel with exhaust turbocharger	
· Performance	86 horsepower at 4500 rpm	
· Displacement	122 cubic inches	
Transmission	Three-gear automatic, two-gear splitter group	
· Gears	Six forward, two reverse	
Specific ground pressure	5.22 psi	
Maximum speed	47 mph	
Minimum cruising speed	2.5 mph	
Gradability	60%	
Side slope	30%	
Cruising range (Average 60% road, 40% off-road)	124 miles	
Cruising range at 75% of maximum speed (34 mph) on paved roads	186 miles	

With the attachment of mobile combat support assets such as attack helicopters, airborne forward observers, minelayers of the airmobile engineer company, and high angle fire of the airborne mortar company, the airborne brigade has at its disposal a unit that can conduct mobile warfare from the air and on the ground without interruption.

This unit is likewise well suited for the overwatch of extended areas and for the movement to contact. In these the battalion can make contact with the enemy, halt, transition into the delay, and thereby create the decisive conditions for the commitment of the airborne brigade in the role of *Find-Turn-Fix-Strike.*

Since the flanking operations of friendly elements always include frontal security and frontal protection against the enemy's long-range, direct-fire weapons, such operations are to be avoided. In such operations, the fires of friendly elements into the enemy's front are not directed into the enemy's flank, and are not suitable for the airborne antitank battalion.

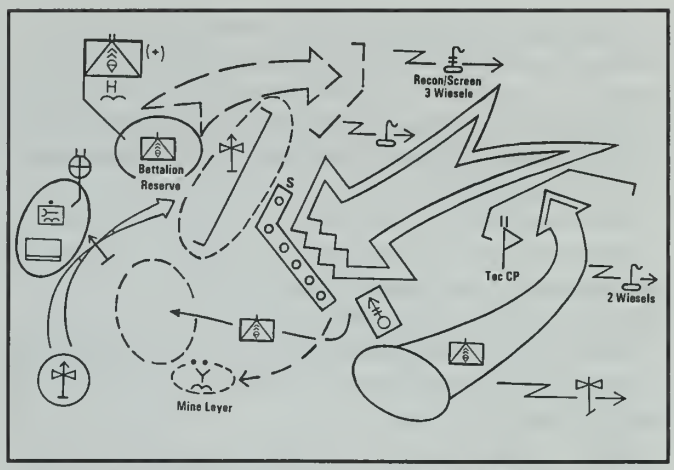
In the employment of the battalion, the consideration must always be to gain access to the enemy's deep flanks. In order to achieve this, the commander cannot be deterred by boundaries, and the battalion must think and act in terms of space. For this, a flexible command structure that can be simply employed and that, above all, can operate at night and under stress without mistakes is absolutely essential. One airborne antitank company is to be maintained as battalion reserve.

Another essential prerequisite is unbroken combat reconnaissance (Figure 4) that—in cooperation with aerial and ground (Wiesel) reconnaissance—maintains constant contact with the enemy and thereby always delivers secure intelligence information.

The counterattack consists of a sharp, decisive attack against a deep flank of the enemy and the destruction of the enemy from favorable blocking positions with the concentrated fire of TOW, machine cannon, and available combat support. In such actions decisive engagements or duels with the enemy should not be allowed to develop, since the battalion needs some time to test its main weapon, the TOW, before successive rounds can be fired.

SEQ. NO.	ELEMENTS	EQUIPMENT	PERSONNEL	MEDIUM TRANSPORT HELICOPTER LOAD
1		1 Wiesel 1 TOW 1 Wiesel 1 MK 20 (Commander's escort)	Commander	1
2		1 Command post truck 1 Communications truck 1 Tent set for CP truck	Battalion S-3	1
3		1 Maintenance truck for airmobile maintenance section	Battalion Motor Sergeant	1/2
4		1 Medical truck for the airmobile medical section Additional: *1 Light transport helicopter for wounded *1 Light transport helicopter for battalion surgeon	Battalion Surgeon	1/2

Figure 5



In the employment of the Wiesel battalion, the scheme of maneuver must always focus on gaining access to the enemy's deep flanks.

Three elements are necessary for the highly mobile and flexible conduct of battle:

An Air-Transportable Maintenance Unit. The conduct of movement warfare is only possible when the maintenance that accompanies the unit is likewise mobile. Figure 5 shows the maintenance elements in the headquarters and support company of the battalion. Even small maintenance tasks, such as the changing of fan belts, require removal of the engine. It is interesting to note here that even when the engine is removed from the Wiesel on its own hoist, the motor can be started and the vehicle's weapon system remains operational with the electrical power the engine provides. The only recovery and heavy lifting capability available to the battalion is one four-ton crane, which does not have a cross-country capability and is not air transportable. It can be employed after the arrival of the ground support element, at either a forward support location, or at a support facility located in the field trains.

Here is an important operational consideration: Since a commander must strive to keep the 61 Wiesel weapon carriers available for combat as long as possible, it is essential to conduct maintenance in the field rather than recovery with maintenance later.

An important point to remember is to move a disabled Wiesel to the first available cover and have the airmobile maintenance team service it there, as the action continues.

The unit's Wolf maintenance section truck can serve as the prime mover for the maintenance contact team. The necessary repair parts package—assembled prepackaged according to established demand—the general and special tool kits, as well as the lifting machinery for the engine, are stored ready for air movement.

The Airmobile Main Battalion Command Post. Highly mobile battle command is possible only if the command and control match the capabilities of the main weapon system. A first step toward achieving this is to have a battalion command post which can be moved by air.

In this connection, it is necessary to determine whether the concept of having a main CP and a tactical CP will cause the staff and supply company to be expanded. At least for the air

borne antitank battalion, a flexible command structure consisting of an air movable battalion main CP and a movable tactical CP appears to be both functional and sufficient. A further step is the introduction and linkage of a modern command and control system such as the intervehicular information system (IVIS).

The Airmobile Medical Unit. Until a unit medical service is organized that is tailored to and capable of meeting the requirements of the new missions, we will have to fully utilize the capabilities and means at hand.

One possibility that is immediately available is the incorporation of the airmobile medical unit into the unit medical service (Figure 6).

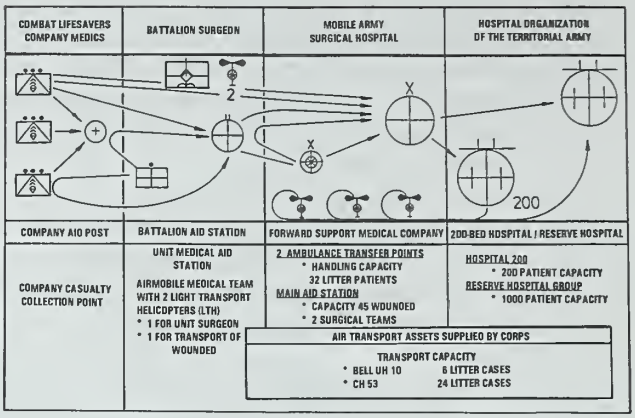


Figure 6

Airmobile Mortar and Airmobile Engineer Companies

A mortar company and an engineer company are likewise attached to the airborne brigade, and both company commanders are integrated into the first-wave airborne battalion. Since they are found in the tactical CP of the battalion commander, they are able to assist the commander in the following ways:

- Provide input on the barrier and fire support plans on the ground.
- Discuss further plans with the battalion commander on the spot.
- Deliver the barrier and fire support plans for the opening engagement to the brigade CP on the way to the battalion main CP. These actions ensure that planning can be conducted and the flow of information to all critical points maintained without delay.

In addition to artillery-fired or engineer-emplaced mines, helicopters can also be used to lay minefields.

The Mine Launcher Equipment Set for the UH-1D Light Transport Helicopter consists of:

- Installation Kit, Mine Launcher/UH-1D.
- Two magazine racks.
- Installation, testing, and firing apparatus (ITFA).

The magazine racks and ITFA were introduced for the ground-mounted mine launcher, and the system emplaces the AT 02 antitank mine.

The following employment data apply to the helicopter mounted minelayer:

- Minelaying speed over ground—25 meters/second.
- Cruising radius—approximately 150 Km.
- Maximum flight speed—approximately 170 Km/hr.
- Time to mount equipment—approximately 30 min./two persons.
- Number of mines—200.
- Length of launched mine barrier—500m (density of 0.4 mines/meter).

Lessons Learned

The experience of commanding the airborne antitank battalion has provided a number of insights into the advantages and planning considerations of fielding and employing units of this type:

- One condition for success is that the brigade plans, organizes, and issues orders for the airborne antitank battalion's battle to be a highly mobile one.
- Restricting the battalion to an area that is too narrow, or to the role of static forces will keep the strengths of the unit from being properly employed and will drastically reduce the value of the action.
- The Wiesel weapon carrier is in no way simply another combat support asset!
- In order to simplify command of airborne operations, the unit should be task organized upon deployment into the area of operations.
- The company commanders of the engineer and mortar companies must be included in the planning for the first ech-

The CH-53 helicopter can carry two combat-loaded Wiesel armored weapon carriers for rapid insertion.

elon of the supported unit to ensure an information flow without delay to the brigade main CP—by way of the battalion main CP—once coordination and planning have been conducted with the battalion commander.

• Company sectors will serve only a coordinating role within the context of the opening battle. Afterwards, while maintaining steady contact, the unit must wrest a deep flank from the enemy to strike at him there with the greatest combat power possible.

• Doctrinally, the battalion reserve consists of one airborne antitank company. It will be committed without hesitation, if this employment promises a successful counterattack. At the same time this is done, another company is to be made available as the battalion reserve.

• In the event of an enemy counterattack with insufficient shock effect, the deep flank of the enemy is to be aggressively attacked, whereby the enemy is smashed with a combination of TOW and machine cannon fire, along with the addition of all other available combat support fires.

• Operations in conjunction with attack helicopters have proved effective. Both ground maneuver forces and attack helicopters complement one another splendidly in mobile warfare. Attack helicopter flights have reported their availability over the battalion command net in the aerial sector of operations, and have then been assigned missions by the battalion commander. The conduct and tempo of mobile warfare do not permit face-to-face discussion.

• The introduction of a modern command and control system such as IVIS would considerably improve flexibility.

• In the conduct of mobile warfare, combat reconnaissance assumes a new prominence. Doctrinally, an airborne antitank company was employed for reconnaissance, with six patrols as scouts. They reported decisive information on the enemy and were the basis for deep thrusts into the enemy's flank. A self-sufficient reconnaissance force, supported by the Wiesel on the ground and airborne forward observers, has proven its worth.

• The ability to move swiftly and easily, combined with night vision devices, permitted continuous overwatch of the battlefield even under conditions of reduced visibility.

• The detachment of individual TOW and machine cannon weapon systems has proved inappropriate. The compelling necessity of the TOW/cannon combination must be preserved. While the Wiesel 1 TOW weapon carrier with the AN/TAS thermal optics can annihilate lightly armored and hard targets under almost all conditions of visibility beyond 800 meters, the effectiveness of the cannon-mounted Wiesel 1 with image intensification optic ranges from 100 meters to 1,000 meters against soft targets, and out to 800 meters against lightly armored targets. It should also be noted that at night targets in shadows cannot be acquired by the image intensification of the cannon Wiesel, and hence cannot be engaged. Here the TOW with its thermal sights is needed to identify targets, direct fires, and assist the cannon Wiesel.

• To ensure mobility and communications, doctrinally the crews do not dismount. Any necessary discussions are conducted from the vehicle.

• The Wiesel weapon carrier is a fully developed, easily operated and maintained combat vehicle of the airborne force that is well suited to the troops who will employ it.

Summary

The airborne antitank battalion represents a modern battalion organization of the airborne infantry that optimizes tactical mobility and places a high volume of firepower at the disposal of the airborne infantry. It is the only infantry unit of the airborne force that can transfer the mobility of air movement into maneuver on the ground, day or night, in any terrain, and under all conditions of weather, without delay.

Even now, with its TOW or machine cannon-equipped Wiesel weapon carriers, the battalion—combined with attack helicopters, the high angle fire of the airborne mortar company, and the engineer company's mine launchers—is capable of uninterrupted, highly mobile combat on the ground, and from the air after long-range vertical envelopment.

In addition, the high degree of tactical mobility can be further enhanced by the availability and employment of the transport helicopter assets of Army aviation, while the reinforcement, attachment, or tasking of air-transportable MLRS (multiple launch rocket system) units would also open up extraordinary employment possibilities for a Wiesel unit.

The Wiesel is an ideal combat vehicle for the airborne infantry, in terms of training, air transportability, and tactical employment, whose limitations imposed by weight must be recognized if we are to fully capitalize on its strengths. In employing the Wiesel, the airborne brigade has at its disposal two types of battalions, both of which can be immediately put into action without further task organization. Nevertheless, the commander still remains able to task organize, depending upon the situation, mission, and terrain.

The airborne antitank battalion and its Wiesel armored weapon carriers are well-suited, without limitation, to create critical conditions for the conduct of future operations, after strategic air transport and landing or off-loading, in the context of early entry forces. Their rapid deployability, extensive flexibility, and high mobility offer today's airborne and airmobile forces the ability to provide timely and decisive response to a wide range of contingencies around the world.

Lieutenant Colonel Wolfgang Mettler has been a platoon leader, company commander, and battalion commander in German Airborne units, and commanded a WIESEL battalion for two years. He is a graduate of the German Army Command and Staff College, and is currently the German Army Liaison Officer to the U.S. Army Infantry Center and School.

OPFOR Observations from the JRTC

CAPTAIN GEOFFREY N. BLAKE
CAPTAIN JOHN CALAHAN
CAPTAIN STEVEN YOUNG

As the battlefield becomes more and more sophisticated, it becomes increasingly difficult for a commander to synchronize all his resources. Experiencing this problem under the realistic conditions at the Joint Readiness Training Center (JRTC) gives a commander a better understanding of the effectiveness of the Army's battlefield operating systems in similar types of environment.

Having served in the JRTC opposing force (OPFOR) during numerous rotations dealing with light, airborne, air assault, and Ranger units, we would like to offer some observations and advice from the OPFOR point of view. Although some of the problems we have seen have been at brigade and battalion level, our comments will focus on those at company and platoon level. Our purpose is to provide some insight into the OPFOR's ability to disrupt each battlefield operating system, and into what we see as the common causes and remedies.

Intelligence

The shortcomings in intelligence at the JRTC lie in the basics and are to be found mostly at company and platoon level. The enemy situation is a critical part of the orders process that does not always receive honest treatment. Company commanders must ensure that their subordinates fully understand the enemy situation, including identification, organization, tactics, and equipment.

Because they do not understand the enemy, many soldiers poorly execute personnel search techniques. Units need to

spend more time looking for information of potential intelligence value, and leaders must ensure that their soldiers conduct proper searches of enemy dead and wounded. As on a real battlefield, there are no safe pockets—areas immune from search—at the JRTC.

Any intelligence source (prisoner, document, or piece of equipment) must be processed quickly. Units that capture OPFOR soldiers take an average of 24 hours to evacuate them to the rear for interrogation. By the time any information obtained is analyzed and sent to someone who can actually use it, it is practically worthless. On a fluid battlefield with a highly mobile enemy, a delay of 48 to 72 hours in getting information can be costly in terms of lost opportunities.

OPFOR soldiers, on the other hand, become familiar with the rotating units and are able to prioritize their searches to get the appropriate information. Units make the OPFOR searches even easier when their personnel carry complete operations orders, maps, graphics, overlays, and signal operating instructions on the battlefield. Leaders must see that they and their soldiers go into battle carrying as little information as possible.

Another part of operations security involves denying local civilians access to sensitive areas such as the brigade support area (BSA), the tactical operations center (TOC), and the firing batteries. (The OPFOR gathers a great deal of intelligence this way.) And once civilians do gain entry to a sensitive area, they must be escorted out promptly instead of being left to wander to another area of interest. On a real battlefield, units will have to deny access to these critical areas, especially in countries with active insurgency elements or general political unrest.

Maneuver

During the low intensity conflict (LIC) phase at the JRTC, units operate in large centralized elements against a small, irregular, and highly mobile guerrilla force. The guerrilla units are effective against a centralized force because they are flexible and can cover a large area. Units succeed when they have centralized command while maintaining effective decentralized control: Effective decentralized operations and control originate at squad and platoon level.

Unit battle drills are key to success on any battlefield, and successful drills must be thoroughly rehearsed and trained, from individual soldier to platoon level. Individual soldiers must instinctively take the initiative on contact to seek cover and return fire, and only training experience will enable them to assess the situation and react quickly. Too often at the JRTC, individual soldiers wait for instructions from team or squad leaders before taking even the most rudimentary actions against an attacking OPFOR.

Squads and platoons must be well-versed in all battle drills, but particularly in actions on contact. They must quickly react to contact, assess the situation, and develop it to their units' advantage. Quick reaction, rapid development, and mobility are essential if a unit is to bring overwhelming firepower to bear against a small, highly mobile OPFOR. Units in contact seem to take too long to assess the situation before reacting, thus allowing the OPFOR to control the situation, maintain the momentum, and dictate the outcome of the engagement.

If small units have individuals and subordinate elements with the initiative and the capacity to react to contact quickly and in a decentralized fashion, the enemy is kept off balance and loses the advantage. In addition, following a contact with the OPFOR, a unit must quickly consolidate and reorganize to prepare for further operations. A unit cannot be effective if it is so fragmented that there is no control at the leader level; a fragmented force will not be as capable of resisting when and if the OPFOR returns to engage it again. Security is therefore essential throughout this process.

Security is especially vital during LIC because the enemy is virtually everywhere. From start to finish, security must be enforced by leaders and practiced by individual soldiers. Many times, complacency and a false sense of security in numbers prevail in company assembly areas and platoon patrol bases, and this complacency spills over into movements and halts during movement.

If small units have individuals and subordinate elements with the initiative and the capacity to react to contact quickly and in a decentralized fashion, the OPFOR is kept off balance and loses the advantage.

When moving, whether mounted or dismounted, soldiers need to be alert, aware of their surroundings, and actively seeking out the enemy. Frequently, the OPFOR can easily track and monitor a unit during movement, and can choose when to conduct limited harassment attacks or sniper missions, such as when the unit encounters restrictive terrain, is crossing a bridge, or during halts. Actions at halts must be rehearsed and regulated in terms of the dispersion of forces and the level of security to be maintained.

Although security is just as vital in a defensive position or battle position as in any other mission, security often appears to be relaxed during the defensive phase in the main battle positions. Nowhere is this more evident than in the positions that overwatch obstacles. As a result, OPFOR reconnaissance elements or advance motorized elements are frequently able to dismantle an obstacle, open and mark a breach lane, or move around until they discover a suitable bypass route. Security must be an ongoing process that includes a coordinated effort between soldiers and leaders.

Synchronization and a coordinated effort are essential aspects of the modern battlefield, particularly in light of the large amount of resources available to a commander. In numerous rotations, however, especially during the LIC stage and the deliberate attack, actions against the OPFOR seem fragmented and uncoordinated. For example, the mechanized infantry-armor team and the light forces fighting against the

OPFOR appear to operate as two distinct forces that are not using their capabilities to benefit each other. In addition, in the defense phase of a rotation, the mechanized-armor team's main antitank firepower is wasted because it is not tied in with the main battle positions.

Integration also extends into Army aviation, which can be highly successful when used properly. On most rotations the aerial hunter-killer teams do an excellent job of impeding and harassing OPFOR operations; in fact, they are a main OPFOR concern during mission planning. In finding and fixing enemy forces, these teams are excellent, but in trying to finish the enemy, the ground forces need to be well integrated with the aerial elements. Highly mobile forces (from the mechanized-armor team or from an air assault) that rapidly move into the area work well with the attack and scout aircraft. The need for a coordinated effort can be seen during all missions, especially the search and attack.

On most rotations the aerial hunter-killer teams do an excellent job of impeding and harassing OPFOR operations; in fact, they are a main OPFOR concern during mission planning.

The search and attack mission in any LIC operation plays an integral role in flushing an enemy or forcing his hand. It is therefore vital that the search and attack be aggressively executed, from individual up to company level. Soldiers must always be attentive and actively seeking out the enemy. They must heed the obvious signs of enemy activity and investigate or report anything out of the ordinary. Soldiers' loads should be carefully considered, because carrying too much weight further hastens the fatigue process, hindering their attentiveness and reducing their mobility.

At platoon and company levels, there are numerous concerns. Platoons and companies during LIC generally fail to clear a complete sector, partly because they often use the modified wedge formation exclusively. As a result, when a platoon or company clears a sector, it actually clears only a seam through the sector. This technique leaves vast tracts of land untouched—in particular, the sector's most undesirable and densest portions. Also, once in contact, or once they discover an OPFOR element, platoons and companies fail to pursue it actively or aggressively. Normally, the effort bogs down in reorganization, consolidation, and evacuation, which allows the OPFOR to escape and continue harassing the small units. To cover the sector adequately and to aid in mobility and flexibility, units must maintain their focus and operate decentralized. Finally, the commander must determine, before the operation is initiated, whether the search and attack will be terrain oriented or focused solely on the enemy.

Fire Support

Generally, the use of indirect fires against the OPFOR does not keep it from executing its mission as planned. Whether this is because fire support assets are improperly positioned or because the unit tightly controls fire missions, the OPFOR seldom loses soldiers to indirect fire. During LIC, the light infantry units that are in contact should have 60mm mortars at their disposal. Fire support at company level must support maneuver elements at the lowest possible level. For example, once the main effort for a company mission is identified, the mortar section should support that effort. Also, key leaders must constantly track their location and that of the mortar section so they can quickly call for fire when the need arises. Every soldier should have the skills to call in indirect fire.

One indirect fire technique witnessed at the JRTC is that of harassing and interdicting (H&I) fires; these fires are normally inadequate because they are terrain oriented rather than enemy oriented and driven by the available intelligence. The reliance on and overuse of H&I fires is therefore wasteful, considering that these types of fire missions are normally unobserved, and thus unadjusted, even when close to a target. In addition, H&I fires can compromise a unit's intent for future operations and give the OPFOR a clear picture of where the unit's forces stand in the reconnaissance and counterreconnaissance battle. Whenever unadjusted rounds are fired repeatedly, the OPFOR can assume that the mortars do not yet know its exact location.

During the deliberate attack, units often fail to interdict with indirect fires and impede the OPFOR in establishing its defense. Few indirect fire missions other than H&I are fired to disrupt the vulnerable OPFOR elements. The OPFOR combat outposts and scout screen can normally thwart any attempt at emplacing reconnaissance elements close enough to provide corrections for fire missions. The OPFOR continues to construct 18 inches of overhead cover on its positions within 24 hours of occupation. Also, preparatory fires on the deliberate attack are alarmingly inadequate, especially when not adjusted. Close air support (CAS) can truly save attacking forces by making up for their lack of indirect fires. Still, units must do a better job of synchronizing indirect fire and CAS to soften the OPFOR battle positions just before the main attack.

Key leaders must constantly track their location and that of the mortar section so they can quickly call for fire when the need arises. Every soldier should have the skills to call in indirect fire.

A different aspect of the indirect fire battle concerns the need to destroy the OPFOR's fire support resources. In this area of the battle, the AN/TPQ-36 and AN/TPQ-37 counterbattery radars are essential. The Q-36 may be the most damaging tool available with which to alter and hamper the OPFOR's indirect fire operations. The Q-36 saves friendly lives by pinpointing the OPFOR's deadly indirect fire assets and targeting them for destruction. OPFOR mortar squads,

which cannot move far from their firing positions, are susceptible to the sweeping of a suspect area by a maneuver force on the basis of a Q-36 reading. It is therefore critical that the Q-36 be kept operational at all times. This means maintaining tight security, camouflage, and deception; using a false Q-36 complete with generator and jumping frequently; and digging in whenever possible. *(See also "The Q-36 Weapons Locating Radar: A Primer for Brigade Commanders and Staffs," by Lieutenant Colonel William A. Sweet, in INFANTRY, May-June 1994, pages 14-17.)*

Mobility, Countermobility, Survivability

To maintain flexibility, units must clear and secure their main supply routes (MSRs). This is difficult and time-consuming, but necessary if the lines of communication are to remain open. A unit that does not fully secure or clear an MSR hampers its own resupply efforts and general mobility. Furthermore, units must report and track the location of an OPFOR minefield to avoid having other convoys run into the same one. This is a two-fold emphasis: First, if the area is cleared of both mines and personnel in the immediate vicinity, the minefield is not likely to be emplaced again. Second, if a net call is made, or each major command is contacted separately and given the location of the minefield, units can avoid it. The mechanized-armor teams are ideally suited to clearing and securing the MSRs if they properly use their overwhelming firepower to overwatch while their dismounts clear the road and the off-road areas in the immediate vicinity. Unfortunately, the OPFOR rarely sees dismounted soldiers from the mechanized-armor teams performing this task.

Countermobility plays an important role in defensive and retrograde operations. It is important that leaders develop a solid defensive plan that includes the engineers and an explicit priority of effort for them. Few of the defensive obstacle plans at the JRTC seem to fit into the overall defensive scheme; they rarely delay, slow, channel, turn, or stop the OPFOR. The obstacles are easily breached by OPFOR tracks or personnel, or they are by-passed.

The AN/TPQ-36 counterbattery radar may be the most damaging tool available with which to alter and hamper the OPFOR's indirect fire operations.

Obstacles are usually linear and are rarely tied in with the terrain or another complex obstacle. In addition, in the rare cases when obstacles are adequately covered by an overwatching element, security is lax and the obstacles can be breached clandestinely. Early warning devices or booby traps in, on, and around obstacles can deter such clandestine breaching. One or two good observed obstacles at keychoke points, tied in with restrictive terrain, are more effective than six or seven mediocre—and unobserved—obstacles in various locations.

During the defense, time and engineer effort should also be allocated to survivability, especially when considering OPFOR doctrine and the heavy reliance on preparatory fires in the attack. In fact, survivability should be the first priority when conducting a defense, and soldiers should be trained to prepare and fight from positions with at least 18 inches of overhead cover. When an infantryman's battle position is being attacked, his place of duty is in his fighting position, not lying down behind it, and adequate overhead cover will permit him to effectively man his position.

A unit that does not fully secure or clear a main supply route hampers its own resupply efforts and general mobility.

Some other general observations: The OPFOR can easily detect surface-laid mines from afar and breach or bypass them. Uncamouflaged engineer stockage points quickly reveal defensive locations to OPFOR reconnaissance elements. Breaching elements must follow the guidelines of SOSR (suppress, obscure, secure, and reduce) and must not allow breaching and assault elements to bunch up close to the obstacle. Most breaches can be handled with vigorously executed battle drills.

Air Defense Artillery

Stinger teams at the JRTC are lucrative targets and generally lack security. They are easy to find because of poor camouflage techniques and their practice of locating on key terrain. The Stinger vehicle is unique on the battlefield, and its boxes of ammunition and antennas are easily identifiable, even from a distance.

Adding to the Stinger teams' problems is the way they are employed. They are normally sent out far in advance of the maneuver forces with no local security. As a result, they often become disoriented and run into OPFOR ambushes or minefields. In many instances, it seems that the air defense elements have not been fully informed of the friendly and enemy activity in their areas of operation. Many of the communication problems and operational deficiencies could be eliminated if the air defense units trained regularly with the maneuver battalions to which they are attached.

Obviously, there is not enough manpower to provide all Stinger teams with a dedicated security force 24 hours a day; this would also increase the size of their signatures. But when the teams are moving into position, especially as brigade assets, the brigade should furnish security for them, perhaps in the form of a military police (MP) escort.

As for Stinger team employment, an effective method is for the teams to use a hide position and several firing positions with a few missiles cached at each. In this way, a team

can move after firing, carrying only the launcher apparatus and the radio from the vehicle. Each team can be sustained for a longer time from the hide position where its vehicle and bulky supplies are cached. And even if an enemy finds one firing position, the team will still be able to fire from the remaining positions and caches.

Combat Service Support

A unit's ability to sustain itself plays a critical role in its success on the battlefield. This applies to the combat arms soldiers as well as the combat service support (CSS) soldiers. One problem units have in CSS is the individual soldier's load. An infantryman's load should sustain him for two or three days, but this does not mean he has to carry a large amount of equipment and material. He should carry only what he needs to survive, while the company and battalion trains carry most of the unit's supplies and rations. (When a soldier carries weights in excess of 90 to 100 pounds, his overall performance decreases rapidly. He becomes a pack mule instead of an alert soldier, and his focus shifts from completing the mission to dropping his rucksack.)

Unfortunately, company trains, BSAs, and other logistical sites and activities on the JRTC battlefield are now prime targets of opportunity for indirect fires or raids. These logistic areas are easy to find because of their size (which seems to get bigger and bigger) and the amount of noise and light they generate. In short, these support areas have simply grown too large and cumbersome to be so close to the forward areas. The simplicity of control, made easier by the consolidation of most of the support efforts in one location, has been negated by complexity and other problems such as light, noise, and physical security. One quick-fix is to disperse some of the logistical systems and to forbid the collocation of such unrelated assets as a field artillery TOC and a battalion aid station.

Too little emphasis is placed on the defense and security of these sites. Units rarely take measures to keep OPFOR forces from gaining easy entry to such areas, nor do they use warning devices or security patrols to deter OPFOR activity around them. In addition, these areas are usually defended by a collection of support personnel, attached soldiers, or soldiers on profiles instead of a force trained to execute battle drills against the OPFOR.

If CSS elements are to provide full support, the training of soldiers of all specialties must concentrate on basic fighting skills as well as on their own MOS skills.

The soldiers ambushed by the OPFOR on resupply missions are usually poorly briefed on their routes, the enemy situation, and the mission. Leaders and soldiers neglect to conduct thorough pre-combat inspections before resupply operations, which leads an ill-prepared element to embark on a mission destined for failure. Convoys encounter ambushes, enter minefields, or get lost.

Convoys should always have some form of security, whether it is the mechanized-armor team or MPs. The support element conducting the mission must be properly prepared to enter a combat environment. These soldiers cannot rely solely on the escort element to transport them safely to their destination; they must be prepared to assume the roles of protector and navigator in the event the escort unit is distracted or destroyed. Additionally, the logistics command and control nodes must ensure that the entire support mission is also treated as a combat operation.

Focus and organization are the best ways to alleviate some fatigue and morale problems. Soldiers should be required to work hard when it is time to work, and then be allowed to sleep without interruption when it is time to sleep.

Casualty evacuation is another area that requires work. Units need to rehearse the evacuation process, from platoon to battalion level, so they can maintain their momentum in the battle. The evacuation process too often diverts a unit's focus and becomes the primary objective of an operation. Throughout the process, they must also remember to maintain security, especially when considering the vulnerability of everyone involved, including the casualties themselves.

If CSS elements are to provide full support, the training of soldiers of all specialties must concentrate on basic fighting skills as well as on their own MOS skills. This training not only benefits the CSS soldiers but also frees the infantry soldiers from providing security for them.

Command and Control

Two things that can make command and control difficult are a confusing or complex commander's intent statement and a plan that has too many working parts. A unit seldom has any control over the number of parts to a plan, but a simple, straightforward commander's intent can help all the parts of the plan fall into place. In his intent statement, a commander must strive for the single goal of victory, simply stating the purpose, the method of achieving that purpose, and the desired end state once it is achieved.

Another mistake commanders often make at the JRTC is that they do not coordinate all their resources. The varied assets on the battlefield are often committed piecemeal, with only one portion of the available resources being used at any given time. This applies all the way up and down the chain of command, from the battalion commander who fails to coordinate for mechanized convoy security during LIC (allowing several convoys to be ambushed) down to the

company commander who has his soldiers spend 24 hours digging fighting positions when, with a little forethought, he could have had the engineer small emplacement excavator do it in half the time. An unimaginative plan often results in poor execution and—predictably—poor results.

Commanders need to be aware that when soldiers work for long periods, they become fatigued two or three days into a rotation and therefore less motivated. Focus and organization—accomplishing tasks without wasted effort are the best ways to alleviate some fatigue and morale problems. Soldiers should be required to work hard when it is time to work and then be allowed to sleep without interruption when it is time to sleep.

The OPFOR has learned the hard way, through many battles, that if individual soldiers can fight, teams and squads will succeed, and if teams and squads succeed, the entire unit will succeed.

Something that may not be so obvious is over-preparation at higher levels at the expense of preparation and training at lower levels. It appears, from our conversations with countless soldiers rotating through the JRTC, that most home-station training is geared to company or battalion level exercises that focus on the battalion staff and company planning processes. By contrast, the great strength of the OPFOR is that its small-unit leaders exercise initiative,using soldiers who are highly proficient in basic marksmanship and individual and team movement techniques. And the soldiers agree on one thing: The OPFOR wins most direct-fire contacts at the JRTC. The OPFOR trains at the individual, team, and squad levels almost to the exclusion of platoon or higher operations. The OPFOR has learned the hard way, through many battles, that if individual soldiers can fight, teams and squads will succeed, and if teams and squads succeed, the entire unit will succeed.

Before any plan can be successful, each soldier must be able to shoot, move, and communicate. And he must be able to exercise responsible initiative to develop the situation, reacting with his team and squad in a coordinated manner. In fact, when these skills are in place, the planning process is simpler, because the soldiers will assist in the successful conclusion of the plan instead of being a hindrance or just another asset that requires coordination and supervision.

To succeed at the JRTC or on a real battlefield, all leaders must fully understand the battlefield operating systems and the way they depend upon one another to achieve success. At the same time, however, true success is decided by the force that has mastered the basics. Individual soldier skills and sound squad and platoon tactics are the keys to success on the battlefield.

Well-trained soldiers and highly competent junior leaders are the OPFOR's main threat. If units concentrate on the basics and conduct operations using centralized command and decentralized control, they will succeed.

Captain Geoffrey N. Blake commanded a company in the JRTC's OPFOR—Company A, 1st Battalion, 509th Infantry. He previously served in the 9th Infantry Division and the 82d Airborne Division and is now officer personnel manager at Fort Leavenworth, Kansas. He is a 1983 ROTC graduate of Cameron University.

Captain John E. Calahan was a platoon leader and executive officer in Company A and is now attending the Infantry Officer Advanced Course at Fort Benning. He is a 1989 ROTC graduate of Texas A & M University.

Captain Steven Young also served in Company A as a platoon leader and executive officer and was previously assigned to the 2d Infantry Division in Korea. He is a 1990 ROTC graduate of the University of Kentucky.

TRAINING NOTES

Thoughts on Physical Training

COLONEL KARL W. EIKENBERRY

The U.S. Army has developed an extraordinarily comprehensive and sophisticated physical fitness training philosophy and doctrine. Manifestations of this system are such outstanding references as Field Manual (FM) 21-20, *Physical Fitness Training*, such innovative concepts as master fitness trainers (MFTs), clearly defined Army-wide standards of performance, and a junior-leader professional development program that reinforces the importance of fitness and teaches the skills necessary to effectively train subordinates.

Obviously, our efforts to produce physically fit soldiers are brought into focus by particular training events, the key one being daily physical training (PT). Total fitness also includes other factors—weight control, diet and nutrition, control of substance abuse, and stress management—but it is daily PT that generally receives the most attention from leaders.

PT formation is special because it marks the one time of the day when a unit is mostly in one location, when leaders are not dispersed for various reasons, and when almost everyone has the same mission statement—Participate in PT. While distractors and unforeseen demands play havoc with most other aspects of scheduled training, PT goes as planned, almost as surely as the sun rises. Leaders who take advantage of this have an excellent opportunity to use it as a means of improving daily (at least while in garrison) two essential ingredients of unit effectiveness—unit discipline and cohesion, and the proficiency of junior leaders at planning and conducting training to standard and exercising the art of command.

PT formation is special because it marks the one time of the day when a unit is mostly in one location, when leaders are not dispersed for various reasons, and when almost everyone has the same mission statement—Participate in PT.

In an attempt to pursue these more extensive goals, I offer here an examination of various principles and techniques that junior leaders might consider in formulating their PT programs. Nothing that follows should be perceived as inconsistent with or contrary to the Army's physical fitness training literature. What I'm talking about is the form, or the packaging, that will help us further other goals as important as physical fitness without loss or compromise. In fact, at a time when the Army is undeniably facing considerable stress from shrinking resources and internal changes, the points raised here may be more relevant today than at any time in the recent past. During periods of significant change, good leaders must seek to maintain coherence by rallying their units around certain routines and, in this sense, PT provides just such an opening.

Discipline and Cohesion

Company commanders and first sergeants should ensure maximum attendance at PT formations. Only the absolutes—guard duty and the like—should be considered legitimate exemptions. And battalion headquarters must set the example and the tone. A battalion staff may make a case for needing a clerk to type something during PT, the command group should see that this doesn't happen. Additionally, the battalion executive officer (XO) should have the staff officers assemble as a section at the headquarters company PT

formation, again to send the message that PT is mandatory for everyone, regardless of rank or position.

The battalion commander and command sergeant major (CSM) should be visible throughout the company areas at formation time. In the process, they will also learn how much of a priority PT really is in each company. When a walk through an orderly room reveals a junior leader "preparing for the day's training" (doing what should have been done yesterday), the company commander should be reminded of the battalion's policy.

We often unintentionally drive down participation by failing to question practices that interfere:

One example is changing guard and staff duty positions around 0900, causing members of both shifts to be absent from PT. The CSM can easily fix this problem.

Another example is scheduling sick call during or immediately after PT formation. Unit sick call should begin 30 minutes before PT. Those who need only minor treatment can still be present for PT; those with more significant ailments will be unaffected; and those who *want* to miss PT will be discouraged by the need to rise earlier.

A third example concerns the policy (or lack of it) regarding soldiers who do not participate in PT but are present for duty later in the day (for example, those returning from sick call referrals to the Troop Medical Clinic). Scheduling make-up PT at 1600 may or may not be practical, but if it can be done regularly (including PT for those on profiles), attendance at the morning formation should improve. A commander's example and virtual intolerance of excuses will lead to higher rates of participation in unit PT.

Because uniformity builds cohesion, units should wear the prescribed PT attire without exception. During the winter months in cold climates, soldiers may want to wear varying amounts of clothing, but the outer garments should remain uniform. Rules should be specific (white socks worn up to mid-calf, for example). The goal here is to create a sense of identity among soldiers and to teach junior leaders to enforce the standards. If the "little" but highly visible things aren't being done correctly, chances are the much tougher and less visible things probably aren't being done at all.

Additionally, junior leaders must insist that personal hygiene be completed before PT formation. This may not seem controversial, but few CSMs who walk through company areas can report full compliance. Many junior leaders either don't check or don't see anything wrong with not shaving before PT. When we ignore what is before our eyes, we are not establishing a climate of discipline or teaching our subordinates to emphasize discipline. (We do shave in the field as soon as we rise.)

Finally, commanders should never cancel PT because of inclement weather. Some modifications may be justified (such as when roads are so icy as to be unsafe for running), but changing plans because of rain or cold does not build the collective sense of toughness and unit spirit. Certainly, safety and common sense must prevail, but they should not be accepted as excuses for seeking the easy way out.

During periods of significant change, good leaders must seek to maintain coherence by rallying their units around certain routines and, in this sense, PT provides an opening.

Thoughts on Execution

Leaders who rely on extreme formality in PT may be emphasizing discipline at the expense of fitness. Clearly, we must strive to achieve a balance. On the other hand, those who argue that formality (which fosters discipline and cohesion) is in conflict with the pursuit of fitness are as wrongheaded as those who stress all form and no substance.

When directing their soldiers, leaders must strictly adhere to the standards found in FM 22-5, *Drill and Ceremonies*, and Chapter 7 (Physical Fitness Leadership and Instructor Training) of FM 21-20. Squads strolling instead of marching before beginning a run; soldiers not coming to parade rest upon hearing a preparatory command; calisthenics being performed on the basis of individual style; or units moving into an extended rectangular formation, apparently oblivious to the dictates of FM 21-20, are all indicators of a chain of command that has somehow separated PT and basic collective discipline. Those who believe that such practices can be ignored for the moment—and then somehow captured in the course of the day that lies ahead—are kidding themselves.

Physical training, except perhaps road marching, should always conclude with a cool-down phase. A well-proven technique is for commanders to require their units to conduct five minutes of drill and ceremonies (D&C) as part of their cool-down activities after completing their principal physical training. PT marks that defining moment when every left foot in the unit hits the ground at the same time; the sense of solidarity that results from a few minutes of small-unit D&C, conducted aggressively and precisely, is worth the investment.

There are, of course, excellent forms of PT in which units are broken down. Ability-group runs are a good example. But leaders should ensure that such groups remain in effect only for the time required to complete the tasks for which they were formed. For example, before conducting an ability-group run, a platoon should warm up and exercise as a unit; then, upon completing the run, the various ability groups should meet in the company area, form up as a platoon again, and conduct D&C and cool-down.

In a similar vein, commanders and first sergeants should be cautious about exiling the injured to "profile PT." Peer pressure has tremendous healing power, and soldiers on profiles should exercise with their units (within limits of common sense). Those who are unable to

run should engage in an alternate form of aerobic exercise (walking, bicycling) if possible, and join their comrades again when the unit returns for D&C and cool-down.

Ability-group runs are unquestionably a better form of PT than unit runs, but unit runs foster unit spirit and promote superior performance. A well-organized unit PT session consisting of warm-up exercises and calisthenics, followed by a run to a specific time and distance standard, can pay tremendous dividends. Battalion PT should be conducted once a month (just before a long weekend or block leave), and company PT perhaps once or twice a month. The battalion commander or CSM (or company commander or first sergeant) should extend the formation and lead the exercises, and his counterpart should then take over for the run. If a run is led by noncommissioned officers (NCOs), the commander should lead the officers on a separate run.

The commander or CSM (or first sergeant) should arrange in advance to call forward one outstanding junior officer, NCO, or soldier from each subordinate unit to lead a specified calisthenic during the exercise phase. The accomplishment of the individual called forward (such as Division Soldier of the Quarter) should be announced to the formation, and the members of the soldier's unit encouraged to recognize the soldier.

Commanders might also consider allowing top-notch performers, such as Expert Infantryman's Badge (EIB) recipients, to carry or run directly behind the colors. Upon completion of a battalion run, the commander or CSM should form the staff on the side of the road with the colors and have the units march by as they return to their company areas. Commanders and their NCO counterparts should also use unit PT as an opportunity to talk with their soldiers. Admittedly, no one is going to be ready to compete in the Olympic decathlon event by virtue of his participation in company or battalion PT, but it fosters collective identity and helps validate minimum unit run standards.

Some final observations on the execution of physical training:

- Issuing to subordinates a "no-earlier-than" time for completion of PT is worth considering. Some leaders are inclined to say, "Let's finish a bit early, since we have a busy schedule today." The results are substandard PT and soldiers who are not being disciplined to complete all assigned tasks to standard.
- Modified Army Physical Fitness Tests (APFTs) must be administered to soldiers on permanent profiles in accordance with Chapter 11, FM 21-20; every assigned soldier should be treated as part of the team. The good soldier will be encouraged by the fact he's still being taken seriously, and the not-so-good soldier will learn there is no way to evade PT.
- During collective runs, formations should not turn around and go back for stragglers. Soldiers operating below the margin should be dealt with on their own time; don't waste the workout session of the others by executing 180-degree turns at a snail's pace in the name of "finishing as a unit." Only those who meet the standard should have the *privilege* of finishing as part of the group.
- Encourage excellence in physical fitness by making a big deal of the award of fitness badges (more than 290 points overall and more than 90 points per event on the APFT). Award the badges at unit formations, and require that they be worn on all PT uniforms. At the same time, do not tolerate substandard performance. Use remedial training (after duty hours or on Saturday mornings, if necessary) to address specific problem areas. Ensure that bars to reenlistment are imposed as required for APFT failures or for any documented case of a soldier failing, over a period of time, to attain well-publicized and understood standards of fitness. Leaders should also make sure efficiency reports reflect superior and below-average performances in physical fitness.
- Use trends in sick-call rates as a barometer of the effectiveness of the PT program. In general, a unit with unusually high sick-call rates over an extended period probably has deep-rooted problems within its chain of command. Yet there may also be major weaknesses in the PT program itself that keep soldiers from wanting to participate. We do need to make sure there is a "cost" for electing not to participate, but the lasting solution is to pinpoint any breakdown in leadership that may be turning soldiers off or making them feel their time is being wasted. High sick-call rates often indicate poor leaders, not poor soldiers, and should be taken as a possible symptom of a shoddily run PT program.

The predictability, simplicity, structure, and visibility of PT make it the ideal foundation on which to build efforts to mold proficient junior leader trainers.

PT, Trainers, and Leaders

The Army's training doctrine is clearly set out in the FM 25 series. Nevertheless, developing competent trainers who can apply this doctrine is still one of the toughest challenges for commanders and senior NCOs. Given the turmoil of daily life in a unit, converting principles into practice is often an elusive goal. The predictability, simplicity, structure, and visibility of PT make it the ideal foundation on which to build efforts to mold proficient junior leader trainers.

Commanders, CSMs, and first sergeants should be alarmed when they observe young leaders who are "winging it" at PT instead of planning; who are unable to articulate a task, condition, and standard; or who haven't rehearsed their mission or obtained the resources necessary to accomplish it. If a junior leader isn't doing a good job on something as basic as PT, his superiors can expect major problems in the tougher (and usually less visible) training

assignments. In fact, the correlation between good small-unit PT and good small-unit training is so strong that the performance of junior leaders in planning and executing PT can be used to judge their overall ability as trainers.

PT programs, like all dimensions of training, are planned and executed in accordance with the doctrine outlined in the FM 25 series. Through near-term planning, commanders formulate and approve the daily PT plans that will appear on training schedules. So far, so good. Progression beyond this point, however, often becomes problematic.

The following indicators may be symptoms of a breakdown in the system:

A platoon leader queried about his planned PT for the day cannot answer in more detail than "Squad PT." Leaders must approve their subordinates' training plans and stay informed of their units' whereabouts and activities. Decentralized execution is not equivalent to allowing a subordinate to go off and do things his own way.

A squad leader claims he will be conducting a four-mile run in 36 minutes running nine-minute miles (plus or minus 30 seconds each) but cannot confirm that the route he has chosen is, in fact, four miles in length. Is he (or his platoon leader) aware of the need to measure performance against precise standards or, for that matter, to do his homework before standing up in front of soldiers and trying to train them?

A junior leader races off to the post gymnasium with his element for a weight-lifting session, only to find the gym closed in preparation for a post tournament. A company commander might be inclined to be charitable and say, "Those things happen," but those things shouldn't happen and can't be tolerated if we're to develop responsible trainers. A company commander who deployed his unit to a live fire range, only to find it closed for repairs, would be criticized; a junior leader, within his own domain, should be required to be just as meticulous in his own planning.

An effective means of reinforcing training doctrine at PT is to require officers and NCOs to formally announce the task, conditions, and standard at the outset of every PT session.

For example:

Task: Conduct squad PT.

Conditions: Outdoors, in daylight, in summer PT uniform.

Standards: Conduct three minutes of stretching and five minutes of calisthenics in accordance with FM 21-20; complete a four-mile run in 36 minutes running nine-minute miles (plus or minus 30 seconds each) with 100 percent completion; conduct five minutes of D&C cool-down in accordance with the standards of FM 22-5; and conduct three minutes of stretching, again in accordance with FM 21-20.

Some would contend that this is excessively formal, but in doing it, we remind ourselves, our subordinates, and our soldiers that all meaningful training is built around objective tasks, conditions, and standards. If a chain of command vigorously enforces an SOP that requires junior leaders to announce, execute, and enforce tasks, conditions, and standards at every PT session, the effects will spill over into other forms of training as well.

Despite our fascination with running and jogging, road marching is still much more relevant to the combat readiness of the infantry.

PT also gives us an excellent opportunity to make sure our junior leaders know that "imaginative" training also comes with the qualifications of "meaningful" and "conducted to a standard." There is simply no reason for PT programs to be dull and unexciting. Our creative young officers and NCOs, if given latitude and encouragement, will come up with effective innovations.

Yet the desire to do something different often becomes an end in itself, and we lose track of training objectives and standards. For instance, the platoon leader who includes strenuous rope skipping in a workout session should be commended for originality. But if this event occurs the day after a tough road march, and is offered as no more than a trial of endurance, that same leader should be counseled. Smart leaders can adhere to basics even while spicing up the training. This skill can be fine-tuned by commanders and senior NCOs who remain vigilant at PT and monitor their subordinates carefully.

Much of what I have covered so far implicitly promotes the development of leadership among junior officers and NCOs. But to this I add that a chain of command from battalion commander on down should consistently use PT as an opportunity to assess subordinates, enforce standards, and measure the climate in different units. The same leaders who frequently lament that they have no time to escape their headquarters and be out among their subordinates can often be seen running by themselves at PT or with a member of their staff, which is a truly wasted opportunity. It should be unit SOP that no one—battalion or company commander or staff officer, CSM or first sergeant—will take PT alone.

Moreover, when a senior leader joins one of his units for a PT session, he should always provide informal feedback (both the positive and "needs improvement") directly to the officer or NCO in charge, after the soldiers have been released. A good technique is to have junior leaders first evaluate themselves. In a well-trained unit, most of them can identify their own problems. Commanders must be informed of serious deficiencies, and excellence recognized through a variety of methods—praising the leader in front of his soldiers after PT; sending an informal handwritten note through the leader's chain of command; or mentioning the individual by name at a training meeting.

Physical training is also one of the best forums in which to train and test young soldiers. It makes good sense for officers and NCOs to call on their soldiers occasionally to lead exercises, call cadence on runs, take charge during the

cool-down D&C periods, or even lead for most of a PT period. Too often, however, soldiers are randomly and spontaneously selected for such missions, which is unfair to them if they fail at the task. For anything more than the most routine assignments, young soldiers should be forewarned and rehearsed and should be critiqued on their performance afterward. When we say we're engaging in leadership development training, our actions should reflect that development.

Finally, since a leader is responsible for guaranteeing the fitness of his assigned soldiers, PT is an excellent medium through which to improve and assess the ability of the junior officers and NCOs to motivate and guide their subordinates. When confronted with an otherwise good soldier who is slightly overweight and having trouble with the APFT, a company commander and first sergeant—before accepting the problem as their own—should ask the platoon leader and platoon sergeant what they have done to help solve it. If there is no evidence that the team and squad leaders have been actively working with the soldier after duty hours or on Saturdays, no record of counseling, no special PT program initiated for him, it is the concerned members of the chain of command who need counselling on their own responsibilities and obligations.

In sum, physical training is a very observable and measurable way to teach leaders their basic duties and the meaning of commitment. Moreover, small-unit outcomes—both excellent (a high number of soldiers earning the fitness badge) and substandard (below-average APFT scores and percentage passing)—should be reflected on the responsible leaders' efficiency reports. Such follow-up, again, promotes and reinforces leader responsibility.

Although my intent here has been to consider PT from the perspectives of building discipline and cohesion and developing trainers and leaders, I offer several observations that pertain primarily to the substance of a unit's PT program:

Organized athletics are not a form of PT and not a cost-effective way of conducting it. Too many breaks in action defeat aerobic conditioning goals, the lack of skill of many participants limits intensity, and the atmosphere is too informal. Team sports should be saved for unit athletic days and garrison afternoons when the senior leaders have to be somewhere else.

Road march frequently but sensibly. I doubt that any infantry unit in the history of warfare has ever been defeated because all its soldiers couldn't run two miles together in 16 minutes. On the other hand, some units have suffered reverses because they couldn't move from one point to another in a specified time. Despite our fascination with running and jogging, road marching is still much more relevant to the combat readiness of the infantry. (I'm not denying the contribution to our fitness that aerobic conditioning makes; I'm only saying we need tough, steady marchers more than we need marathon runners). Units in garrison should march at least weekly. Commanders must also ensure that road marches to standard are incorporated throughout field exercises; it is surprising how frequently units deploy to the field without planning or conducting any PT.

If a commander wants to take stock of a unit's discipline and cohesion, as well as the training and leadership skills of its chain of command, all he has to do is join that unit for daily PT.

When feasible, try to avoid using trucks to get to and from the field, or to move from range to range. Infantry is footmobile and must be trained accordingly. In addition, road marches must be sensible. The EIB road march standard may make sense in the context of a demanding individual skills test, but it should not be adopted as a division-mandated small-unit norm. The EIB standard requires speed marching, which tears the body down and causes units to arrive at their destination ill-prepared to fight. Infantry leaders should be trained to pace and conserve their soldiers as judiciously as they would complex pieces of equipment with attendant "do not exceed" rates of operation.

Finally, soldiers should always road march with the gear they expect to carry in combat. In garrison, it may not be possible to draw weapons during the time allocated before PT, but "pre-signing" can usually overcome this problem. Units marching around in PT garb, wearing boots, and carrying rucksacks make for amusing sights, but they aren't training under the conditions they will encounter in combat.

Conduct rigorous aerobic exercises or road marches on Mondays. No amount of admonition will prevent some soldiers from consuming prodigious amounts of alcohol on weekends, but the certainty of a taxing run or road march on Monday can be a deterrent, at least to those contemplating a weekend binge.

Use master fitness trainers as advisors, not principal instructors. MFTs, on the basis of the commander's fitness objectives, must play an important advisory role in the development of long-term, short-term, and near-term training plans. They are also adept at conducting "train the trainer" sessions for junior leaders. Employing MFTs primarily to serve as principal instructors for unit PT is akin to hiring a world class coach to lead a team's warm-up exercises.

Ensure quality control when preparing for and administering APFTs. Commanders and senior NCOs are frequently stunned when large numbers of their soldiers fail to attain EIB APFT standards (minimum score 240 points, at least 70 points per event) on the day of the test. After all, in the ramp-up to the EIB test, company commanders and first sergeants all reported such excellent results that the APFT wasn't considered among the potential "killer" events. As an antidote, leaders and commanders up to battalion level

should organize and administer impartial practice and actual APFTs throughout the year. For example, a rifle company practice test might be organized by the first sergeant using selected NCOs and PT fitness badge holders as testers. The results should be tabulated down to squad level and disseminated throughout the unit. The improved integrity of the test, along with the pressure of the competition, will lead to a steady improvement in unit fitness (and to fewer surprises on the first day of an EIB test).

If a commander wants to take stock of a unit's discipline and cohesion, as well as the training and leadership skills of its chain of command, all he has to do is join that unit for daily PT. This is a unit's most focused and predictable routine training, and it is safe to assume that if the basics (in the broadest sense) aren't being emphasized here, they are being neglected elsewhere as well.

Commanders who are truly committed to shaping combat ready units will establish PT programs that seek to accomplish two goals: to produce physically fit soldiers and to promote discipline and teamwork and develop top-notch trainers and leaders. Through practice, a chain of command will find these objectives mutually reinforcing.

Colonel Karl W. Eikenberry is assigned to the Office of the Secretary of Defense, International Security Affairs. He commanded a light infantry battalion in the 10th Mountain Division and has served in command and staff positions in airborne, Ranger, and mechanized units in the United States, Korea, and Europe. He also served as an assistant Army attache at the U.S. Embassy in Beijing, China. He is a graduate of the United States Military Academy, holds a master's degree from Harvard University, and is a Stanford University doctoral candidate.

Staff Training
Observations from the NTC

MAJOR KURT W. MILLER

Observations at the National Training Center (NTC) indicate that battalion and brigade task forces do not conduct enough realistic and tough task force level multiechelon training. Home-station training for most units focuses primarily on warfighting skills that test individual, crew, platoon, and some company mission essential tasks. Staff level skills, individual and collective, are trained only through combat simulations and are not measured against an exacting standard of combat conditions.

As a result, many task force staffs at the NTC lack the skills to carry out the tactical decision-making process to standard; commanders must therefore focus on controlling their units instead of commanding them. And if the commander has to spend most of his time at the main command post (CP) supervising the staff, he cannot properly supervise the critical events that make his intent clear—such as atte-nding subordinate unit operations order (OPORD) briefings and rehearsals. Neither can he make a firsthand assessment of the task force's preparations for combat.

Aside from a lack of training, many staff officers are also lacking in experience. The typical battalion task force at the NTC often fits the following general description:

At field-grade level, the executive officer (XO) has not served with troops for two or three years—or he has served as S-3 and still tries to do the S-3's job. The S-3 is a recent graduate of the Command and General Staff College, or was deferred from the course to take the -S-3 position, and has little recent experience at task force level.

At company-grade level, the first lieutenants in the S-3 Air, S-4, S-1, fire support officer (FSO), and S-2 positions have only recently completed—or have not yet attended—the officer advanced course and have had little or no staff experience. The chemical officer is often a second lieutenant straight from an officer basic course. The Air Defense Artillery and Engineer officers may be in their first assignments at task force level.

These staff officers may have served as shift officers in an administrative CP during unit collective training, or as range safety officers for company-team gunnery exercises, and some may have participated in orders drills but rarely during field training. Their only training in the orders process has usually been during a command post exercise (CPX) or a simulation exercise while preparing for the unit's NTC rotation.

Many leaders contend that a task

force staff can be adequately trained through controlling and supporting squad or platoon level exercises, plus one three-day CPX. But it is hard to understand how an S-3 section and main CP—manned at half strength, managing 15 combat platoons, the scout platoon, and the mortar platoon executing five to eight training lanes over 20 to 30 kilometers—can train on all the command and control tasks described in ARTEP 71-2 MTP, *Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force.*

The only way a staff can practice the planning process and CP operations is in multi-echelon collective training. Mission essential task list (METL) training for staffs should be conducted monthly. All this training requires is a little imagination and planning.

There are several techniques a battalion task force can use to train its main CP and staff in garrison or in the field:

While in garrison, the main CP should conduct separate training for staff tasks and noncommissioned officer (NCO) or soldier tasks. The officers can conduct biweekly bag-lunch seminars, beginning with mission analysis and then progress through the planning process in accordance with Field Manual (FM) 71-2, *The Tank and Mechanized Infantry Battalion Task Force (How to Fight)*, FM 101-5, *Staff Organization and Operations*, and FM 101-5-1, *Operational Terms and Symbols.* The staff can train on doctrinal terms and symbols and the intelligence preparation of the battlefield process, or review the standing operating procedures (SOPs).

It should not be difficult to assemble a battalion staff for training in garrison, since most staff members work within walking distance of the headquarters. In any event the XO must not allow the absence of one or two staff members to stop the training. It is easier to train one or two staff officers who missed the training during a training exercise than it is to wait until the entire staff can be assembled.

While the officers are working on the planning process, the NCOs can use maintenance days to set up the entire main CP, including attached elements. This will allow the NCOs to treat the main CP as a system of subelements—mapboards, tables, radios, extensions, lighting—that all require maintenance.

During sergeants' time or other training time, the NCOs can train the junior enlisted soldiers on the other skills required for a functional CP and planning process. Among the numerous soldier tasks, some that require constant attention are the doctrinal symbols on standard operations overlays, radiotelephone procedures, battle tracking, and internal information flow.

The main CP should deploy to the field at least quarterly and conduct its own training exercises, with the focus on critical task training. Initially, the CP can conduct separate staff and NCO or soldier training. The operations sergeant can train on main CP displacements during both daylight and limited visibility. This training will refine procedures and turn out a true SOP instead of just some "good ideas" written down two weeks before a deployment.

At the same time, the battalion staff can practice the orders process in a GP medium tent, possibly with the help of the brigade staff. The exercise can finish with the complete staff and main CP conducting an orders drill that includes reproducing the final products.

Finally, during task force-controlled company-team exercises, such as situational training exercise lanes or a fire coordination exercise, the battalion task force can develop a scenario that also portrays other company teams, adjacent unit actions, and spot reports. This scenario will facilitate a simulation for the main CP that allows the staff to conduct after-action reviews and develop a system for gathering, analyzing, and disseminating critical information. The simulated reports allow the staff to define battle tracking roles while the XO or S-3 coaches the staff on how to process and analyze information during the battle. In such an exercise, the commander can observe the staff and discuss the amount and type of information he expects during an engagement, and the staff can design main CP configurations that support the flow of information.

The tactical decision-making process is designed to help a task force commander command his unit. By using both commander and staff estimates, a unit can develop a plan that uses its combat power effectively against the enemy. It is the commander's trust and confidence in the staff that will enable him to conduct his own estimate and then supervise the preparation of his plan.

There is no doubt that success on any battlefield requires a combination of command and control. But the Army's efforts in this area should emphasize command and de-emphasize control. Task force commanders must train their staffs to conduct the complete tactical decision-making process with minimal supervision.

Major Kurt W. Miller served as a trainer in infantry task force command and control at the NTC and is now an instructor at the U.S. Army Logistics Management College. He previously commanded a company and served in battalion and brigade staff positions during Operations DESERT SHIELD and DESERT STORM.

A Training Plan
For OPFOR Dismounted Infantry

CAPTAIN S. F. KUNI

The opposing force (OPFOR) at the National Training Center (NTC) receives three rifle companies each month as augmentees to replicate the OPFOR regiment's dismounted capability. All operations take place in open, rolling, or mountainous desert terrain; almost all are conducted in limited visibility and against an armored foe. These soldiers tend to function poorly when they are initially faced with the constraints of serving as OPFOR. By the time they figure things out, it's time to rotate home again, and three new companies arrive to learn all over again.

A simple three-day training plan can prepare a company for an OPFOR augmentee rotation. This plan covers the basics, is relatively cheap to run, and uses reverse cycle training. Although the original training fell short of the goal, if it is adequately supported it can begin improving the effectiveness of future OPFOR infantry from the first day.

The intent is to train OPFOR infantry in tank killing and night fighting skills that will help make the OPFOR more lethal. The desired result is well-trained rifle companies that can move and kill at night on the NTC battlefield. A brief overview of the training is shown in Table 1.

This training is relatively simple and inexpensive to run. For one company, a training area two or three kilometers long will do (although more would be better). Each company needs at least one armored vehicle with MILES (multiple-integrated laser engagement system) equipment and a radio. The best vehicle to work against is the Bradley, because it will be the OPFOR's "opposition" at the NTC, and it has thermal sights. Less expensive to operate is an M113 with MILES; it is easier to kill, not as heavily armed (although its .50 caliber machinegun must be respected), and relies on the night observation devices of the track commander and driver. Spare vehicles should be laid on in case one goes down.

The support platoon provides enough ATWESS (antitank weapon effect signature simulator) ammunition, white star parachute (WSP) flares, and small arms ammunition to conduct the training (see Table 2). (The totals shown reflect the *maximum* amount required. It is quite possible that less small arms ammunition will be used in the meeting battle. It is also likely that very little of the ammo forecast for the Day 3 night infiltration past the armored vehicles will be used.)

OVERVIEW OF THE TRAINING

Day 1	AM	Mission Prep Lunch
	PM	Move to training areas Day Dragon and Viper practice Dinner (MRE) Night Dragon and Viper practice Move to rear
DAY 2	AM	Troop sleep Lunch
	PM	Move to training areas Day movement techniques Dinner (MRE) Night movement techniques Move to rear
DAY 3	AM	Troop sleep Lunch
	PM	Move to training areas Platoon/company battle drills Dinner (MRE) Company night movement

Table 1

The normal complement of antiarmor weapons for an OPFOR rifle company is nine Dragons and 18 Vipers. This plan is flexible enough to allow a commander to make adjustments based on the situation in his own company.

The company links up with the armored vehicle in the early afternoon. All 18 Vipers establish maximum range on a stationary vehicle. Once all Vipers have killed, soldiers from squad leader up practice issuing volley fire com-

AMMUNITION REQUIREMENTS FOR EACH COMPANY

DAY 1	54 ATWESS, 18 WSP.
DAY 2	None.
DAY 3	36 ATWESS, 18 WSP, 900 M-60, 900 M-249, 2,100 M-16, ammunition for target vehicle according to type.
TOTAL	90 ATWESS, 36 WSP, 900 M-60, 900 M-249, 2,100 M-16.

Table 2

mands with groups of three Vipers firing at a stationary vehicle. When all six groups can consistently kill a combat vehicle at 150 meters, the vehicle moves in closer and provides the infantrymen with a moving target. The vehicle increases its speed and its distance from the firing line until all six teams achieve consistent kills on a moving target. The intent is to standardize firing commands within the company (an example is shown in Table 3) and to show the gunners the limits of their systems. During day fire, each gunner should fire at least one live ATWESS round, always following the safety rules for firing ATWESS.

After the Viper fire, Dragons should fire individually at the stationary vehicle at increasing range. After the maximum range for each of the nine Dragons is established, three teams of three shoot in volley at first the stationary and then the moving target. Also, each Dragon gunner fires at least one ATWESS round. Soldiers not involved in active firing may practice land navigation skills or common task training.

The company then eats dinner and prepares for night gunnery. Leaders control teams of three Vipers or three Dragons. The intent is to practice the coordination of the gunners, the fire commands, and the use of WSP flares. Initially, this should be a sort of known-distance range, with the Vipers firing at 100 meters and the Dragons at 300 meters. Gunners identify targets, orient on them, and confirm to the leader that they are ready to shoot. The leader then gives a preparatory fire command and launches a flare, taking the wind into account. After the illumination round bursts over the target, the leader finishes the fire command, and the gunners engage simultaneously. If teams show skill early, they can then try to engage the vehicle as it moves slowly toward them. Leaders should try not to use more than two WSPs per team, but should try to get each team a night kill under illumination. Given six teams of Vipers and three of Dragons, they can expect at least 18 WSPs. Before leaving the area, leaders should coordinate the next day's training location and time with the target vehicle crew.

On Day 2, the company deploys after lunch, links up with the target vehicle, and rehearses platoon and company movement techniques, actions on contact, breaking contact with an infantry fighting vehicle as a platoon and as a company, and actions at halts.

Squads should move in wedges, platoons with squads in column or in a wedge. Companies should travel with platoons in column, by traveling overwatch, and learn rolling bounds to bypass contact.

The break-contact drill is for chance contact with a Bradley. The lead element taking Bradley fire returns fire violently just long enough for the element behind it to set a hasty firing line oriented on the Bradley. The lead element turns and runs through or to the side of the second element and continues to the end of the unit, turns and sets. The second element, now out front, sends suppressive fire as soon as the running element passes and pulls to the rear of the formation. The third element does the same. Bounds continue until enemy fire is no longer effective and the unit reaches defendable ground. Leaders then consolidate, reorganize, and figure a new route.

Action drills are the same as in any army. Volume of controlled fire, coupled with simple, decisive movement, often makes up for lack of numbers. The unit must not get pinned down (easy to say, but hard to do); immobility leads to death. If a unit can't maneuver forward or to the flanks, it pulls back. It is better to have only two survivors breaking contact than to lose all in a heroic stand.

Actions at halts need work. Often, a company that is moving well stops for a five-minute water break. This turns into a half-hour break-in-contact drill when somebody falls asleep or the lead of the column starts moving again before the

EXAMPLE OF DAY AND NIGHT ANTITANK FIRE COMMANDS

TASK: Kill an enemy armor vehicle.

CONDITIONS: Given a leader, three gunners with similar antiarmor weapons (all Dragon or all Viper), a stationary or moving enemy vehicle vulnerable to the weapons on hand and within range, and enough class V, day or night. The enemy vehicle has not observed the team.

STANDARDS: Kill the vehicle with the first volley.

DAY

Leader: "Gunners, enemy (tank, Brad), direct front."

Gunners: Announce "Up" after clearing backblast area and weapon is ready to fire.

Leader: "At my command...."

Gunners: Announce "Identified" when target is in sights.

Leader: Waits for all gunners to announce Identified. "Three, Two, One, Fire."

Gunners: All engage simultaneously upon hearing "Fire."

NIGHT

Leader: "Gunners, enemy (tank, Brad), direct front."

Gunners: Announce "Up" after clearing backblast area and weapon is ready to fire. Orient in general direction given.

Leader: "Sending illum now." (Pops white star para, directs gunners onto target.)

Gunners: Announce "Identified" when target is in sights.

Leader: Waits for all gunners to announce "Identified." "Three, Two, One, Fire."

Gunners: All engage simultaneously upon hearing "Fire."

Table 3

tail of the column has closed. The trick is that, when a halt is called, every one stops *in place*. The tail of the column, if moving well, is *supposed* to be spread out. "Closing the accordion" is an undesirable tendency. The accordion stretches out when the column starts again because the men don't start moving until they see men in front of them moving. Units can try "all Bravo" call signs, "This is Bravo, halt for water, move again in five, acknowledge in turn." Units stop in place without changing the interval, and if the junior leaders watch the time, everyone starts moving again at the proper interval with no lag.

If a stop of an undetermined length of time is made, the commander stops, assembles key leaders, and then passes the time of the next start. If the soldiers are disciplined, each will get up at the time he has been told, not just when they see the guy ahead of them go. The interval between soldiers in the formations should be as far as one can make out a man without a night vision device, regardless of the type of formation. The distance between forward and flank security and the main body should be out to the limit of a night vision device's ability to make out groups of soldiers. Given the capability of the enemy, spreading out is the only defense against losing the entire unit to a single Bradley chain-gun engagement.

In some training, these drills resemble standard U.S. movement techniques, and some vary greatly. A well-honed unit may resist changing something that, for it, works well. These drills are designed to be simple and rapid for a unit that needs practice working in open ground. Too often, after a few kilometers in the dark, tactical movement turns into "follow-the-leader," and contact causes complete breakdowns. Sometimes command and control is re-established, sometimes not. These drills should be practiced until they are smooth in the daytime, then practiced in the dark. The target vehicle is placed on the route of march. The vehicle's commander can evaluate the approach and movement through his night sight, if he has one. Critical things at night are breaking contact in good order and starting and stopping movement in good order.

On Day 3, the company links up. In the afternoon, it works on bypass drills with the target vehicle. If a sister company is doing similar training in the area, a meeting battle can be scheduled around mid-afternoon. The two companies should run headlong into one another for force-on-force, actions-on-contact practice. The commander's goal should be to keep his unit intact, under control, and able to continue the movement after contact. This has the potential for turning into a MILES cowboys-and-indians melee, but he shouldn't let it.

"The important things are always simple. The simple things are always hard."
Murphy's Laws of Combat

After dinner, and after dark, the target vehicle is placed along a route. Use two vehicles separated by a kilometer or so if possible. The company uploads with live ATWESS and WSPs. The target vehicles engage if they can. The company makes a run, killing the target vehicle if it can, bypassing if it can't, and breaking contact if it must. Depending on performance and the time available, the commander can order additional runs down the lane.

It is useful to note here that there are several myths concerning MILES antiarmor systems. Debunking these myths is not MILES gamesmanship but rather learning to use a weapon system to exploit its strengths and avoid its weaknesses.

MILES antiarmor weapons *must* be volley fired. Each system has a probability of hit and a probability of kill. When a sensor receives enough MILES "kill" words within a certain amount of time, that system dies. It is vital, therefore, that multiple weapons be fired at the same time at the same target. With these factors and the fact that one gunner might miss and another might have an unserviceable weapon, this still gives a fair chance of killing a target. Firing must not be staggered during a volley.

Given the importance of good volleys, perhaps antiarmor weapons should be organized so that the platoon leader directly controls the three Dragons in a single element. Each squad leader should have control of the three Vipers in his squad. These "teams" need to be close enough together to be under voice control. Squad leaders and platoon leaders need WSP so they can kill in the dark.

The hunter-killer team of a Dragon and a few Vipers is not effective because of the dissimilarity in the tracking time of the weapons. What matters is the volume of kill words received in a short period of time.

Gunners should not be in a great hurry to shoot, especially in the dark, because as soon as they fire, they lose the advantage of surprise. All advantages (mobility, protection, firepower) go over to the soldier who had been sleeping soundly until a gunner rushed his shot and missed. The gunner should take his time while he has it, and make sure everything is right before he shoots.

It used to be accepted as fact that a Bradley's MILES system could not die as long as its 25mm gun was firing. Now it appears it can die. Nevertheless, anyone shooting at a firing Bradley has already lost the element of surprise.

Shooting under WSP at night requires patience. It burns long enough for the gunners to acquire a target, for the leader to issue a calm, clear, fire command, and for the gunners to track a target.

The OPFOR soldier's primary mission is to kill U.S. tank-killing systems. The only way to do that to standard is to rehearse and practice often. MILES weapons should be boresighted and checked before every operation. Soldiers can practice on stationary and

moving armored vehicles at the longest possible ranges. There is a noticeable difference between units that actively practice and boresight and those that just "check the block" without really boresighting.

It is the training unit that holds every technical advantage. The only way for the OPFOR to win is to use its basic soldier skills in the dark more expertly than the training units who are relying on their technology.

Captain S.F. Kuni served as platoon leader, company executive officer, and liaison officer in the NTC's OPFOR regiment and is now assigned to Fort Benning. He is a 1989 ROTC graduate of Augusta College in Georgia.

U.S. Army Combat Arms Matches

FIRST SERGEANT JOHN E. FOLEY

The U.S. Army Combat Arms Matches are more than marksmanship competitions. They are practical and applicable to actual combat operations, where soldiers face real challenges and danger, and where the disciplined application of small arms fire, with or without visible targets, can pay big dividends. The participants in the matches are soldiers who have exceeded the basic Army qualification standards in unit-level marksmanship training, and the skills they develop can improve their units' marksmanship training.

On the battlefields of today, it is not how many rounds a soldier fires at the enemy but what he does with those rounds. Especially in operations other than war, accuracy is even more important because of the number of innocent bystanders likely to be in harm's way, and accuracy requires confidence: A soldier who has confidence in his weapon is more likely to use it when the time comes, and he is better able to withstand pressure and stress and to hit a fleeting target in less than two seconds.

For many years, Army marksmanship was conducted under the Trainfire system, which was defensive in nature; zeroing, field firing, and qualifications were all done from prone or supported prone positions. A shooter was allowed only one shot per target and could load and fire only on command. Although this system was convenient and satisfied safety concerns, it did not teach soldiers to handle their weapons aggressively or to exercise personal initiative.

The two major goals of the Combat Arms Matches (formerly called the All-Army Small Arms Competition) are to promote interest in small arms marksmanship training and to raise the standards of proficiency in the use of individual service weapons—rifles, pistols, and machineguns.

The things that make these matches different are that the soldiers fire from long range to short range, which corresponds to closing with the enemy; they fire more than one shot at a target in most stages of fire; and they must engage up to three targets at once with their rifles, or four with their pistols. The shooters reload at their own discretion, although the range cadre may suggest how they should load and change magazines.

The shooters move down range with loaded weapons. Although the range cadre checks to see that all weapons are on "safe," it is up to the shooter to keep the muzzle down range and not to endanger fellow competitors. Any soldier who is not behaving responsibly in this regard is pulled off the firing line and, in extreme cases, disqualified and removed from the range. No longer can a shooter passively await commands from the tower. Each firer is responsible for his own conduct, with penalties to the individual instead of the whole firing line. In other words, each soldier has to think, move, reload, and shoot accurately, all on his own.

The soldiers fire from prone, kneeling, sitting, squatting, and standing positions; fire after sprinting 100 yards; and fire at small, fleeting, camouflaged targets. In the long-range match, they fire from 600 and 500 yards (549 and 457 meters) at man-sized targets.

This means a firer must take into account the effect of range and wind, or he will miss his target completely. A crosswind of ten miles per hour at 600 yards will cause an M-16 bullet to drift 43 inches, or 68 inches at 600 yards, and this is from a 300-yard zero. (This data is for the AO59 M885 ball ammunition, but it is similar for the M193 ball as well.)

At these matches, it is not enough to be a good rifle, pistol, or machinegun shot. All competitors fire the rifle and pistol Excellence in Competition match. The rifle shooters fire all the individual pistol matches, and the pistol shooters fire all the individual rifle matches. The top firer in each event (rifle platoon,

machinegun, sniper) then competes in a shoot-off, firing each weapon in each category to determine the overall top firer in the Army.

Each post and division may send a team, but there is also a battalion team category, and individuals may shoot in the matches. The sniper and machinegun teams consist of two members, or a maximum of three, with the third serving as an alternate.

Training teams to compete in the matches should not be a rush job, in which the best shooters are put on separate duty status for a couple of weeks before the matches. A solid year-round unit marksmanship program is best. Not only will the shooters be better, but a unit will have its pick of the consistently good shooters. The chief benefit of this approach is that all the soldiers will be better able to handle their weapons in a professional manner and hit what they aim at, any time, anywhere.

The following are a few suggestions for a unit marksmanship program:

- Look at the combat arms match program, which explains the courses of fire in detail. It is impressive to note how little ammunition is fired—an average of 30 to 40 shots for a rifle match.
- Have a solid physical training program, including wind sprints and upper body strength. Firers must be physically fit.
- Plan to shoot once a quarter at least, but more often as time and resources permit. Plan your shooting around what you want to accomplish—snap shooting, prone rapid fire.
- Have individuals practice on their own. If they're using MILES, they should shoot to kill. Although MILES does not include wind drift or bullet drop, it does give the soldiers the basics of marksmanship.
- Incorporate the shooting skills needed for the real world and the matches into your unit marksmanship training.

A unit's best shooters, along with those who are interested enough to shoot on their own, will not need much encouragement to participate in extra training for marksmanship. But shooting well should not be for the elite few. All soldiers should be able to handle their weapons competently and hit targets with them. Still, knowing that the best shooters will be sent to compete, all the soldiers will have an incentive to strive for good marksmanship.

In the Army Combat Arms Matches, the chief limitation is in the number of competitors the matches can handle. For the 1993 matches, for instance, the Active Army, Army National Guard, and Army Reserve were given quotas for attendance, with each limited to 300. But a total of only about 540 competed, and roughly twice that number could have been accom-modated. (Curiously enough, the ranks of the Active Army were somewhat thin, and infantrymen were a definite minority.) The major cost of competition is for travel to and from the site of the matches.

The next Army Combat Arms Matches are scheduled to be held at Camp Robinson, Arkansas, in March 1995. Additional information on the courses of fire is available from the U.S. Army Marksmanship Unit at Fort Benning.

First Sergeant John E. Foley has been shooting competitively since age 14. He is assigned to the 2d Battalion, 187th Infantry, 101st Airborne Division and previously served in the Ranger Training Brigade at Fort Benning, the 2d Infantry Division, and the 25th Infantry Division. Several of his articles on various subjects have appeared in INFANTRY.

INFANTRY CAREER NOTES

RESERVE OFFICER PERSONNEL MANAGEMENT ACT

The Reserve Officer Personnel Management Act (ROPMA) was signed into law in October 1994 and is scheduled to take effect on 1 October 1996. The act revises and modernizes the statutes that relate to the appointment, promotion, retention, and separation of U.S. Army Reserve commissioned officers.

The following are some of its key provisions:

Promotions. The Secretary of the Army will be authorized to permit "below-the-zone" promotions for top performers. Under current law, he can only establish a promotion zone for each grade and competitive category.

Boards considering officers for promotion to captain and above will select only the "best-qualified" officers, instead of those who meet the current "fully qualified" criteria. An officer who is twice passed over for promotion to captain, major, or lieutenant colonel may be removed from active status. (A nonselection to the rank of colonel is not considered a pass-over.) This "best-qualified" system will allow the Army Reserve to set selection ceilings and rank officers on an order-of-merit list.

Officers will no longer be required to meet time-in-service standards. Position vacancy promotions similar to the current unit vacancy promotion system will be extended to any officer in active status, permitting accelerated promotions.

Reserve Active Status List. ROPMA establishes a Reserve Active Status List (RASL) of Individual Ready Reserve (IRR), Troop Program Unit (TPU), Active Guard Reserve (AGR), and Individual Mobilization Augmentee (IMA) officers by date of rank for the purpose of promotion.

Officers in the IRR will be promoted on their promotion eligibility dates, but AGR and TPU officers will need to occupy slots in that next higher rank before they can be promoted, unless they transfer to the IRR.

Voluntary Delay of Promotions. The Secretary will have authority to approve an officer's request for delay of promotion for up to three years (instead of the current one year without penalty), after which time the officer must either accept or decline it. An officer who declines after that period will be considered to have failed selection for promotion and will have to go before a second promotion board to regain eligibility.

Selective Continuation. ROPMA provides for selective continuation authority, which will permit officers to remain on the active status list who would otherwise be removed—either because they have twice failed to be selected for promotion or because of total years of commissioned service.

Selective Early Removal Boards. All officers with more than 30 years of total commissioned service or 20 years of satisfactory commissioned service for retirement may be involuntarily separated early.

Special Selection Boards. Special selection boards will be authorized to consider officers who have been omitted from consideration, or not selected for promotion, because of an administrative error or omission in record.

Constructive Service Credit. The constructive time-in-grade credit for education and experience given to professionals with special skills—Judge Advocate General officers, medical department officers, and chaplains—will no longer be used in computing their maximum years of service.

The enactment of ROPMA is the first comprehensive overhaul of Reserve officer personnel management statutes since 1954. It parallels the 1980 Defense Officer Personnel Management Act (DOPMA), which governs the careers of active-duty commissioned officers, ensuring that personnel management policies for Reserve officers will be compatible with those of active duty officers. *(This item has been adapted from an article in* Army Reserve Magazine, *Fall 1994, pages 5-6.)*

OREGON ARNG LOOKING FOR INFANTRYMEN

The Oregon Army National Guard's 41st Infantry Brigade, recently designated an "enhanced" brigade, is looking for highly motivated infantrymen to serve in units throughout the state.

The brigade has a civilian career support program that will help new soldiers find good jobs.

For further information, anyone who is interested may call the brigade recruiting office at 1-800-255-2764 or DSN 638-5110.

BOOK REVIEWS

Napoleon's Last Victory and the Emergence of Modern War. **By Robert M. Epstein. University Press of Kansas, 1994. 215 Pages. $29.95.** Reviewed by Dr. Charles E. White, Infantry School Historian.

The advent of "modern war" is the central focus of Robert Epstein's superb study of the Franco-Austrian War of 1809. The author contends that the scale and intensity of Napoleon's campaigns in Italy and Austria in 1809 produced conditions and methods reminiscent of warfare today. Epstein argues that "the emergence of modern war" thus began with this war.

This book is a refreshingly new interpretation of Napoleonic warfare. Building upon his previous study, *Prince Eugene at War: 1809*, Epstein examines the 1809 war in terms of evolving new systems of recruitment, organization, and battle command (as well as theater command). As the author convincingly shows, this was the first time two states confronted each other on the battlefield with massive, evenly matched armies, created by large-scale conscription, organized into corps, and coordinated along two major theaters of operation (Austria and Italy). As a result, both the French and the Austrians were forced into what Epstein calls "distributed maneuvers"; that is, the deployment of divisions and corps and their maneuvers throughout a theater of operations. This new style of warfare (similar to that found in the U.S. Civil War and subsequent conflicts) produced broad operational fronts in which battles became both sequential and simultaneous.

Interestingly, as Epstein points out, neither Napoleon nor Archduke Charles ever fully understood that a paradigm shift had occurred in the conduct of war. The reason they did not see this change is that perhaps 1809 was not the beginning of "modern warfare."

What happened in the Franco-Austrian War was theory finally being put into practice. Years before, enlightened soldiers in France, Prussia, and Austria had predicted warfare on the scale and intensity that occurred in 1809. In fact, many of the "new systems" both France and Austria employed in that year had already been introduced (but not put into practice) in the Prussian Army during the years of reform following its catastrophic defeat in 1806. Regardless, warfare would never be the same after 1809.

Robert Epstein is to be commended for writing a fine book that contributes significantly to an understanding of the development of modern army organizations, as well as battle command. The book is thus a thought-provoking study that provides valuable insights into the changing nature of warfare during the Napoleonic era. For anyone seeking to find the origins of "modern war," this work is a good starting point.

Bounden Duty: The Memoirs of a German Officer, 1932-45. **By Alexander Stahlberg. Translated by Patricia Crampton. Brassey's (UK), 1990. 410 Pages. $24.95.** Reviewed by Lieutenant Colonel Harold E. Raugh, Jr., U.S. Army.

The evil machinations of Adolf Hitler and his followers continue to fascinate historians, especially as the 50th Anniversary of World War II is being commemorated. The publication in English of Alexander Stahlberg's memoirs has provided a wealth of new and significant information.

Stahlberg was born in 1912 into a wealthy and influential Prussian family. At the end of 1932, while attending university in Berlin, he became "press consultant" to former Reich Chancellor Franz von Papen. While in this position, he was privy to the behind-the-scenes activities during January 1933 after which Hitler became Chancellor of Germany and Papen his deputy. Stahlberg later worked in his family business but remained aware of the political scene and volunteered to serve as a cavalry trooper in 1935-36 to avoid joining the Nazi Party. Recalled to active duty for a short period in 1938 and commissioned shortly thereafter as a reserve officer, Stahlberg later participated in the offensives into Poland, France, and the Soviet Union.

Upon the recommendation of a General Staff officer cousin (who, according to the author, was the chief organizer of the resistance to Hitler), Stahlberg became aide-de-camp, and later adjutant, to Field Marshal Erich von Manstein in 1942. He served Manstein in the Soviet Union (including during the encirclement of the German Sixth Army at Stalingrad), during the Battle of Kursk, and after Manstein was relieved in March 1944 until the end of the war. From this unrivaled vantage point, he accompanied Manstein to numerous conferences with Hitler, which he describes in exquisite detail, and was drawn into the fringe of the anti-Hitler conspiracy circle.

As indicated by its title, the main theme of the book was the inner conflict between duty and conscience experienced by Stahlberg, Manstein, and those army officers who opposed Hitler. Although it was recognized that Hitler was a criminal who would eventually destroy Germany, many officers, especially Manstein, were fettered by the strictures of ethical dogma and refused to do anything to save their nation, even when they learned of the government-sponsored campaign to destroy the Jews.

A case in point is the encirclement at Stalingrad. Manstein, as Commander-in-Chief, Army Group Don, believed he could have saved the Sixth Army, either by coordinating an attack to relieve the surrounded army, or by permitting it to break out of its encirclement. Since he had given his oath of loyalty to Hitler, however, he believed it was his duty to obey Hitler's unrealistic and ludicrous order for the Sixth Army to defend to the death the "stronghold" of Stalingrad and did nothing to save the hundreds of thousands of German soldiers.

The well-written and well-translated text is superbly supplemented by some three dozen photographs of episodes from the author's life that stress his World War II experiences. Six maps of significant German offensives provide easy-to-understand references.

This enthralling book offers further insight into the minds of the German Army officers during the Nazi regime and makes a significant contribution to military history.

The theme of loyalty to the sovereign power versus the limits of obedience is a thought-provoking and often disturbing issue. This book is difficult to put down once begun.

***Mao Tse-Tung on Guerrilla Warfare.* Translated by Samuel B. Griffith, II. Introduction to Second Edition by Arthur Waldon and Edward O'Dowd. The Nautical & Aviation Publishing Company of America, 1992. 168 Pages. $19.95.** Reviewed by Colonel Cole C. Kingseed, U.S. Army.

In this era of diminished superpower confrontation, the subject of revolutionary guerrilla warfare and low intensity conflict continues to fascinate military strategists and defense planners. This second edition of Mao's treatise on guerrilla warfare is destined to become a classic of military literature.

What makes this second edition so valuable to a U.S. audience is the introduction by Chinese scholars Arthur Waldon and Edward O'Dowd, which builds on both Mao's original essay and the introduction to the first edition by the translator, Marine Corps Brigadier General Samuel B. Griffith, II. The theme that dominates the book is the interaction between the development of guerrilla warfare in Asia and the reaction to it in the west.

Waldon and O'Dowd fault both Mao and Griffith for neglecting a possibly useful distinction between partisan and pure guerrilla warfare: In partisan warfare, irregular forces operate most effectively in coordination with conventional forces; without these main forces, partisans or guerrillas are far less effective. General Vo Nguyen Giap used this combination of North Vietnamese regular forces and Viet Cong guerrillas effectively in Vietnam; the Malaysian communists lost because they had neither conventional forces nor allies to support them. The authors of the introduction conclude that the recent collapse of communism removes the most reliable source of conventional forces for the would-be guerrilla forces and that pure revolutionary guerrilla war, as defined by Mao and Griffith, may become as rare as revolution itself.

Still, the world remains a dangerous place, with economic, social, and political instability likely to continue as nations search for modernity. In such struggles, irregular warfare and partisan activities have a place. And so long as they do, this book should be required reading for strategic planners and military officers involved in peacetime engagement activities designed to eliminate the chief causes of instability in the developing world.

***The Battle of the Generals: The Untold Story of the Falaise Pocket—The Campaign That Should Have Won World War II.* By Martin Blumenson. William Morrow, 1994. 288 Pages. $22.00. Reviewed by Lieutenant Colonel Albert N. Garland, U.S. Army, Retired.**

This book's subtitle is a bit misleading. Over the course of many years, the author has written extensively on this particular World War II battle—the Allied attempt to bag the German armies in Normandy that took place in August 1944. What he does do in this, his latest effort to explain why the Allied armies failed to close the Argentan-Falaise pocket, is to come down squarely on the side of George Patton, the flamboyant commander of the U.S. Third Army. Patton claimed (in his diary, at least) that his army could have cleared up the Falaise mess and bagged all the Germans at the same time if his U.S. superior, Omar Bradley, and the Britisher, Bernard Montgomery, had followed his plans. The author believes that if Patton had had his way, the war in western Europe would have been over; Germany would have had to give up the fight, because it would have lacked the trained manpower and battle equipment to continue.

Perhaps. But the author makes a number of questionable assumptions and fails to address such important items as the problems inherent in conducting coalition warfare and the one that plagues every dashing military commander—logistics.

Admittedly, the author makes a persuasive case. He is a far better writer than most military historians, a trait most readers will find enjoyable. One could wish for more maps, but this seems a common cry among reviewers of military histories. Certainly the author knows his subject—and his man Patton. Yet his failure to properly address all of the air aspects of the battle and the later effort at the Seine River, as well as the beliefs of the various air commanders, seems a definite weakness in his narrative.

His word portraits of the four major commanders—Eisenhower, Montgomery, Bradley, and Patton—are finely drawn. I find it hard to believe, however, that if Patton had been in Bradley's shoes he could have "worked closely and effectively" with Montgomery, particularly if the latter had retained his command over all Allied ground forces in the theater. Their dislike for each other dated at least to the Sicily campaign during the summer of 1943, in which Montgomery's actions and ability to sway Harold Alexander caused the campaign to drag on unnecessarily for more weeks than anticipated. Patton detested Montgomery, and the feeling was mutual.

Despite certain of my misgivings, I do recommend this book for reading by all infantrymen. There is much the author has to offer concerning high command in battle. I suggest, however, that the reader study the battle in greater detail before tackling this book, and the author's select bibliography is a good place to start.

***Ironclad of the Roanoke: Gilbert Elliott's Albemarle.* By Robert G. Elliott. White Mane Publishing Company (P.O. Box 152, Shippensburg, PA 17257), 1994. 372 Pages. $29.95.** Reviewed by Dr. Ralph W. Widener, Jr., Dallas, Texas.

Historian Shelby Foote, in the October 1994 issue of *Naval History*, says that naval matters have received scant attention in writings about the U.S. Civil War and that this should be remedied. As if he anticipated Foote's remark, Robert G. Elliott has written about the *Albemarle*, one of the best ironclads built by the Confederacy, and about the resourceful man who built her.

The author, a World War II veteran who later worked on the Apollo moon project, is a collateral descendant of Gilbert Elliott, the man who conceived the *Albemarle* and saw to its construction under the most trying conditions.

Gilbert Elliott was just 18 years old when he convinced the Confederate Naval Department he could be relied upon to deliver an ironclad ram to counter the Union's North Atlantic Blockading Squadron. After all, he was descended from a long line of shipwrights who had built successful trading vessels. Even so, he faced many obstacles building the ship: a lack of experienced workers, the difficulty of obtaining needed materials (especially iron), and the ever-present danger that his shipyard (built in a cornfield) might be captured by the enemy. Despite these problems and many others, the ram was completed on time.

This book provides a good account of the *Albemarle's* baptism of fire at Plymouth, North Carolina, where, on 19 April 1864, she rammed and sank the USS *Southbridge*, and damaged the USS *Miami*.

On 5 May 1864 the *Albemarle* faced seven U.S. Navy ships in Albemarle Sound. She withstood a ramming by one ship and was surrounded by three others that had a combined displacement of more than 2,900 tons to her own 376 tons. She severely damaged the USS *Sassacus* and then proudly steamed off under her own power. The commander of the Sassacus later wrote, "I am forced to think that *Albemarle* is more formidable than the *Merrimack* or *Atlanta*, for our solid 100-pounder rifle shot flew into splinters upon her iron plates."

The book describes the *Albemarle's* demise on a rainy morning, 28 October 1864. U.S. Navy Lieutenant W.B. Cushing and his force came up the Roanoke River to Plymouth, approached under heavy fire from the Confederate ram, and detonated a torpedo under her hull.

Elliott's book is exciting reading, from the original idea for building the *Albemarle* to the time it was broken up for scrap. It is a "must read" book for anyone interested in the total history of the U.S. Civil War.

***Soldiering in the Army of Tennessee: A Portrait of Life in a Confederate Army.* By Larry J. Daniel. University of North Carolina Press, 1991. 231 Pages. $22.50.** Reviewed by Major Don Rightmyer, U.S. Air Force, Retired.

The first major studies of the Civil War soldier's life were *The Life of Billy Yank* and *The Life of Johnny Reb*, by Dr. Bell I. Wiley, published in the 1940s and 1950s. More recently, similar accounts have been written by Dr. James I. Robertson and Reid Mitchell. Most of the studies, however, have focussed primarily on the Union and Confederate armies in the eastern theater of the war, largely neglecting the men who fought in the campaigns west of the Appalachians. Larry Daniel has remedied part of that problem by providing this book on the men who served in the Confederate Army of Tennessee.

Daniel has already demonstrated his knowledge of the Army of Tennessee with *Cannoneers in Gray*, his excellent book on its artillery arm. For this book on soldier life, he uses the letters, diaries, and personal memoirs of more than 350 participants. Most of the men he quotes served in the rank of captain or below.

The normal things that make up the daily life and experiences of a combat soldier, no matter what the time period, fill most of this book: uniforms and equipment, daily routine, small arms, rations, sickness, recreation, discipline, religion, morale, and combat experience.

The author points out one significant difference between this army and Robert E. Lee's eastern Army of Northern Virginia: Lee's men were inspired by their leader's example and motivation from the Seven Days campaign all the way to Appomattox. In comparison, the Army of Tennessee had several different commanders during its time of service, the longest period being under Braxton Bragg, who caused considerable dissension and unrest throughout the army.

This book provides a good look at the American fighting man of the 1860s. It adds flesh and bone to the stories of the soldiers who fought at Perryville, Stone's River, Chickamauga, Missionary Ridge, the Atlanta campaign, and other significant battlefields of the western theater.

***Destroyer of the Iron Horse: General Joseph E. Johnston and Confederate Rail Transport, 1861-1865.* By Jeffrey N. Lash. Kent State University Press, 1991. 228 Pages. $28.00.** Reviewed by Major Don Rightmyer, U.S. Air Force, Retired.

A military leader's ability in the area of logistics has frequently meant the difference between success and failure throughout the history of warfare. This book provides a case study of one leader, Confederate General Joseph E. Johnston, and his experiences with rail transport in the two major theaters of the Civil War.

In preparing this book, Jeffrey Lash, an archivist in the National Archives in Washington, D.C., has used the primary historical documents on this subject in the archives as well as numerous other sources.

As an Army captain, Johnston learned the details of railway construction, materials, and use in the years before the war when he was assigned to work with exploration parties in the western territories of the United States. He bombarded the War Department's railway experts with queries so he would be well-prepared to do his job. The application of the knowledge he gained during that time, however, seems to have had mixed results during his years as a senior Confederate leader.

One of the first noteworthy uses of rail transport during the war was the efficient and timely movement of Johnston's troops from a remote corner of Virginia, which allowed them to fight at First Manassas. Some time later in the same region, however, Johnston allowed the use of rolling stock that was far too heavy, and it crushed the tracks in his area of operations.

Destroyer of the Iron Horse looks at Johnston's use of rail transport in Virginia, the Mississippi valley, the Georgia-Atlanta campaign, and the retreat through the Carolinas. Much of the problem with using the railways under his control stemmed from incompetence and mismanagement among those assigned to supervise the rail movements as well as the constant pull-and-tug between the competing demands of military and civil interests.

This is a more specialized history than the average Civil War fare, but it will be of special interest to anyone interested in the history of military logistics. It is nicely written, thoroughly documented, and well augmented by several excellent maps of the rail networks throughout the Civil War South.

***The AEF and Coalition Warmaking, 1917-1918.* By David F. Trask. University Press of Kansas, 1993. 236 Pages. $29.95.** Reviewed by Dr. Charles E. White, Infantry School Historian.

This book is a refreshingly new interpretation of the final year of World War I. David Trask focuses on the Allied and American high commands, linking events on the battlefield to war aims and strategy. In doing so, he demonstrates a mastery of both the diplomatic and the military aspects of the war. His conclusions are likely to startle many admirers of General John J. Pershing.

Beginning with the mobilization of the American Expeditionary Force (AEF) in 1917, Trask leads the reader through an amazing series of events that reveal a story of U.S. participation in the Great War that is completely different from the one Pershing tells in his final report of 1919 and in his 1931 memoirs. According to Pershing, the AEF assured victory for the Allies, despite War Department bumbling at home and perverse Allied interference abroad. In the end, it was the superior quality of the AEF that overcame all obstacles and led the Allies to victory in 1918.

But Trask concludes that Pershing might have been relieved of command if the war had continued into 1919. Pershing was making quite a fool of himself in France.

Although he considered his sustained resistance to "amalgamation" (the idea of deploying American troops to Europe organized in divisions or smaller units for service under French or British command) a great achievement, French Marshal Ferdinand Foch and British Field Marshal Sir Douglas Haig did not. Looking at the extent of the emergency in 1918, when the Germans launched their spring offensive, Trask demonstrates that Pershing's intransigence placed a severe strain on the Allied coalition and actually hurt the fighting quality of the AEF.

When the AEF was eventually deployed, it lacked the combat experience it might have gained if Pershing had placed American units under French and British control for both training and limited combat service. Moreover, the AEF had neither the support troops nor the logistical facilities to sustain independent operations. Of course, when these deficiencies manifested themselves in combat, Pershing's response was to relieve frontline commanders whose troops had not performed to his expectations. This shocked the other Allied commanders and even President Woodrow Wilson, who began to sense Pershing's limitations.

In fairness to Pershing, President Wilson had given him strict guidance to maintain the independence of the AEF. Wilson wanted to prove to the French and British that the AEF decided the outcome of the war, believing this would give him the diplomatic edge during peace negotiations. But Pershing had also been given the latitude to amend Wilson's guidance as the situation warranted. Indeed, when the French and British begged him for replacement troops in 1918, Pershing responded by sending them black American units.

Pershing's personal shortcomings really revealed themselves in the latter days of the war. On several occasions, he violated his charter and angered both Wilson and Secretary of War Newton Baker, as well as other Allied leaders. First, Pershing overstepped his military authority by advocating the unconditional surrender of all German forces. Then he foolishly tried to deprive the French army of the honor of re-occupying Sedan. Lastly, in November 1918, when the Germans sought an armistice, Pershing wanted to fight on, so that the AEF could prove with deeds the excellence he had already claimed for it. Fortunately for Pershing, the Allied victory masked these flagrant transgressions.

Trask demonstrates that the most important American contribution to victory was not its combat performance as Pershing claimed but the fresh troops and massive material aid. After four years of attrition warfare, U.S. intervention turned the tide in favor of the Allies. Unfortunately, Wilson obtained little diplomatic clout from this contribution.

The AEF and Coalition Warmaking is one of the finest analyses of American participation in World War I. By carefully examining the documents, Trask has produced an outstanding book that sheds welcome light on the AEF and its commander.

RECENT AND RECOMMENDED

Time Heals No Wounds. By Jack Leninger. Ballantine, 1993. 317 Pages. $4.99, Softbound.

The World Factbook, 1993-94. Central Intelligence Agency. Brassey's (US), 1993. 439 Pages. $30.00.

No Longer Enemies, Not Yet Friends: An American Soldier Returns to Vietnam. By Frederick Downs. Pocket Books, 1993. 405 Pages. $5.99.

The Guns of the South. By Harry Turtledove. Ballantine, 1993. 561 Pages. $5.99.

Courage in the Skies: Great Air Battles From the Somme to DESERT STORM. By J.E. "Johnnie" Johnson and P.B. "Laddie" Lucas. Stanley Paul, 1993 (distributed by Trafalgar Square, North Pomfret, VT 05053). 208 Pages.

Rangers at War: LRRPs in Vietnam. By Shelby L. Stanton. Ivy Books, 1993. $4.99, Softbound.

Brave Men, Dark Waters: The Untold Story of the Navy SEALs. By Orr Kelly. Pocket Books, 1993. $5.99, Softbound.

50 Mission Crush. By Lieutenant Colonel Donald R. Currier, USAF (Retired). Pocket Books, 1993. 170 Pages. $5.95.

SNAFU: Great American Military Disasters. By Geoffrey Regan. Avon Books, 1993. 295 Pages. $10.00, Softbound.

The Soviet Military Encyclopedia. By William C. Green and W. Robert Reeves. Westview Press, 1993. Four-volume Set, 1,600 Pages. $375.00.

Twentieth Century American Wars. By Wilbur H. Morrison. Hippocrene Books, 1993. 456 Pages. $29.50.

War Heroes: True Stories of Congressional Medal of Honor Recipients. By Kent DeLong. Praeger Trade, 1993. 224 Pages. $17.95.

U.S. Army Signals Intelligence in World War II: A Documentary History. By John P. Finnegan and James L. Gilbert. U.S. Army Center of Military History, 1993. (GPO S/N 008-029-00250-7) 237 Pages. $24.00.

General Matthew B. Ridgway: An Annotated Bibliography. Compiled by Paul M. Edwards. Bibliographies of Battles and Leaders, Number 8. Greenwood Press, 1993. 144 Pages. $55.00.

One Tough Marine. By First Sergeant Donald N. Hamblen, USMC (Retired) and Major B. H. Norton, USMC (Retired). Ballantine, 1993. 337 Pages. $22.50, Hardcover.

Shadow of Death. By W. Paul Hughes. Bridge Publishing Company (2500 Hamilton Blvd., South Plainfield, NJ 07080), 1993. 254 Pages.

An Irishman in the Iron Brigade: The Civil War Memoirs of James P. Sullivan, Sergt., 6th Wisconsin Vollunteers. By Willliam J.K. Beaudot and Lance J. Herdegan. Irish in the Civil War Series, Number 3. Fordham University Press, 1993. 189 Pages. $27.50.

To the Point: The United States Military Academy, 1802-1902. By George S. Pappas. Praeger, 1993. 528 Pages. $55.00.

Battling Buzzards: The Odyssey of the 517th Regimental Combat Team, 1943-1945. By Gerald Astor. Donald I. Fine, 1993. 338 Pages. $23.95.

Combating Air Terrorism. By Rodney Wallis. Brassey's (US), 1993. 224 Pages. $40.00.

Skip Bombing. By James T. Murphy with A. B. Feuer. Praeger, 1993. 200 Pages. $45.00.

A Borrowed Place: The History of Hong Kong. By Frank Welsh. Kodansha America, Inc., 1993. 640 Pages. $32.50.

The Best and the Brightest. By David Halberstam. Originally published in 1973. Fawcett Columbine, 1993. 720 Pages. $15.00, Softbound.

The Santiago Campaign of 1898: A Soldier's View of the Spanish-American War. By A.B. Feuer. Praeger, 1993. 216 Pages. $47.95.

Colin Powell. By Howard Means. Ballantine, 1993. 337 Pages. $5.99, Softbound.

On Artillery. By Bruce I. Gudmundsson. Praeger, 1993. 192 Pages. $16.95, Softbound.

The Pusan Perimeter, Korea, 1950: An Annotated Bibliography. Compiled by Paul M. Edwards. Bibliographies of Battles and Leaders, Number 11. Greenwood Press, 1993. 160 Pages. $55.00.

Marshalling the Faithful: The Marines' First Year In Vietnam. By Charles W. Henderson. Berkeley, 1993. 460 Pages. $5.99, Softbound.

The Bridge at Remagen. By Ken Hechler. First published in 1957. Pictorial Histories Publishing Co., Inc. (713 South Third Street, Missoula, MT 59801), 1993. 232 Pages. $12.95, Softbound.

The Field Artillery History and Sourcebook. By Boyd L. Dastrup. Greenwood Press, 1993. 240 Pages. $65.00.

Suddenly We Didn't Want to Die: Memoirs of a World War I Marine. By Elton E. Mackin. Presidio Press, 1993. 272 Pages. $19.95.

Peacekeepers and Their Wives: American Participation in the Multinational Force and Observers. By David R. Segal and Mady Wechsler Segal. Contributions in Military Studies, Number 147. Greenwood Press, 1993. 200 Pages. $49.95.

James B. Conant: Harvard to Hiroshima and the Making of the Nuclear Age. By James G. Hershberg. Knopf, 1993. 1,024 Pages. $35.00.

"We'll Stand By the Union": Robert Gould Shaw and the Black 54th Massachusetts Regiment. By Peter Burchard. Facts On File, 1993. 128 Pages.

War in Europe: North African Struggle. Volume 5. By Edwin P. Hoyt. Avon Books, 1993. 147 Pages. $4.99.

*U.S. Government Printing Office: 1995 — 633-120/00006

KEEPING YOUR GUARD UP

Soldiering is a dangerous business, no question about it. It always has been, and it always will be. The challenge is to eliminate those risks that you can control, and firearms-related accidents are close to the top of the list.

The next time you're getting the troops ready for a trip to the rifle range or a parade, or even when they're cleaning weapons, stand back and watch what happens. Odds are that you will see some unsafe acts, ranging from improper clearing of weapons, to muzzles pointed in the wrong direction, and even to soldiers dry-firing weapons at one another. We can call it horseplay, clowning around, or just carelessness, but what it amounts to is taking deadly chances with the lives of their fellow soldiers. Most of your soldiers will discourage or at least avoid those engaging in unsafe acts, but you can also bet that they will be waiting to see what you are going to do about it. Prompt, effective corrective action will let the offender know that you—and your chain of command—will not tolerate this sort of carelessness with firearms, and it will let the rest of your soldiers know that you are indeed concerned with their safety. So how do we prevent the accidental shootings that continue to kill and maim our soldiers every year?

The quick fix is to make sure ammunition is tightly controlled and issued only when absolutely necessary, but this is at best a poor solution, because it treats the symptom and not the problem. Instead, soldiers need to learn to handle weapons with proper respect, and they need to get used to handling live ammunition. Sending a member of your unit out on a roadblock or to face a potential riot with an unloaded weapon is clearly not the answer. To be sure, by doing so we eliminate any chance of an accidental discharge of a weapon, but—beyond endangering a soldier—we send another message: that we don't think the soldier can be trusted with live rounds. Do that a few times, and the soldier will begin to wonder just how much confidence he should have in his chain of command.

But there is a solution, and it has been here all along: good, solid training. Your unit or installation safety office has the materials you need to set up classes on firearms safety, and that's a good place to start. Once you've conducted the training, follow it up with chain-of-command supervision, and you will soon see the difference.

Once we solve the problem of personal safety, we're ready to address a major issue facing deployed forces, and that is the rules of engagement. In the past two years, INFANTRY articles have discussed the actions of California National Guard units deployed to the streets of Los Angeles during the riots of April 1992 and the earthquake of January 17, 1994, including the units' measures on arming orders and the rules regarding the use of deadly force. The steps taken by the Guard chain of command may not necessarily fit every case faced by deploying units, but they offer a good start point for commanders who may someday face similar contingencies.

In today's turbulent world, operations other than war will occupy more and more of our time, and most of them will involve a high degree of risk. Application of the use of deadly force can become blurred unless soldiers fully understand the rules of engagement and can apply them to the situation at hand. The best way to ensure success in the highly visible environment in which we must operate is through tough, realistic training and discipline, principles that have sustained our Army throughout its history. Well-trained, disciplined soldiers who routinely handle weapons safely and understand the rules of engagement will be able to deploy quickly, get the job done, and return home ready for the next mission.

Soldiering is indeed a dangerous business, but by eliminating firearms-related accidents we can continue to protect the force while still accomplishing the mission.

RAE

SUBSCRIPTION INFORMATION

INFANTRY is available to subscribers at $12.00 for one year and $23.00 for two years. Foreign (non-APO) subscribers must add $4.00 per subscription per year to cover the cost of surface mailing and handling. Foreign air mail rates will be furnished upon request. Single copies are $2.50 each if sent to a U.S. address.

Payment must be made in U.S. currency, by international money order, or by a check or draft drawn on a U.S. bank. For best service, payment should accompany each order, because we cannot start a subscription until we have received full payment for it. Checks, money orders, or drafts should be made payable to INFANTRY.

One-year subscriptions are not refundable; two-year subscriptions are refundable, but service and handling charges will be deducted.

DEPARTMENT OF THE ARM
INFANTRY (USPS 370630)
U.S. Army Infantry School
ATTN: ATSH-OTI
Fort Benning, Georgia 31905-5593

SECOND-CLASS POSTAGE PAID
AT COLUMBUS, GA., AND AT
ADDITIONAL MAILING OFFICE

OFFICIAL BUSINESS

Coming Articles:

The Alternate Scout Platoon
The 894th Tank Destroyer Battalion
Enhanced Home Station Gunnery
Battalion Task Force Targeting and Reconnaissance
Attack Helicopter Employment

PIN: 073391–000